EDUCATION
ROOM USE ONLY

SCHOOL LIFE

PERIODICAL
JUL 17

Official Journal of the . . .

OFFICE OF EDUCATION

In this issue

THE DROPOUT

Search for Clues
LEONARD M. MILLER

Definitions and Computations
JOHN F. PUTNAM

MAY 1963

Commissioner Keppel says—

The genius of the computer is its subservience to the genius of man.

THE OUTPUT of any computer is only as good as the input. The machine needs the genius of man, just as man needs the genius of the machine—which, in the last analysis, resides in its speed, in its comprehensiveness, and in it unswerving obedience to man's command.

In the end, therefore, the success of the computer is but the success of the mind of man, as he plans and organizes a whole new system of gathering information about education. Man must bring his wish for order and precision to the work of defining the words he will use in speaking of schoolhouses, pupils, teachers, courses of study, books, and equipment. He must draw on his gifts of communication and persuasion to elicit the cooperation needed from every corner of this Nation if the words are to be universally used in the same way. He must exert his powers of analysis and judgment in determining what he wants to find out from his masses of data and what directions to give the machine. And man must himself be adaptable to change, must even welcome change when it promises improvement; for, if he does not, the machine, despite its superhuman capacity for speed and obedience, will stand as a monumental tour de force without meaning.

Adapted from an address delivered at the first national conference of the Association for Educational Data Systems, May 13, 1963.

CONTENTS

3 Notes on the notable

5 The dropout: Search for clues
Leonard M. Miller

8 Comparable information—principles
Allan R. Lichtenberger

11 School financial accounting
Adams and Perkins

12 Students and teachers abroad
Rose Marie Walker

14 Bonds
Deering and *Bokelman*

17 Research in State departments
John E. Bean

19 Channels of Communication
Seth Spaulding

21 Adminutes

22 Pupil personnel services

23 More teachers for business education
Bruce I. Blackstone

24 Dropouts: definitions and computations
John F. Putnam

32 OE publications

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ANTHONY J. CELEBREZZE, *Secretary*
OFFICE OF EDUCATION . . . FRANCIS KEPPEL, *Commissioner*
MARTIN MAYES, *Acting Director, Office of Information*

SCHOOL LIFE
May 1963
Vol. 45 . . . No. 7

THEODORA E. CARLSON
Editor
ADA JANE KELLY
Associate Editor
CATHERINE P. WILLIAMS
Assistant Editor

School Life reports Office planning and action and publishes articles by members of Office staff; presents statistical information of national interest; reports legislation and Federal activities and programs affecting education. Published nine times a year.

Printing approved, Bureau of the Budget, Aug. 23, 1961. Contents not copyrighted. Subscription: Domestic, $1.75 a year; foreign, $2.25; 1-, 2-, and 3-year subscriptions available. Single copies, 20 cents. Send check or money order (no stamps) to the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

EDITORIAL BOARD

JOHN H. LLOYD, *Chairman*
LANE C. ASH . . . . . GERALD W. ELDERS
PAUL S. BOEHNMAN . . CLAYTON D. HUTCHINS
ALFRED V. OVERN . . . . MARY E. ROBINSON

Notes on the Notable

FEDERAL PROGRAMS AND ACTIVITIES

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Training for Cuban teachers

THIRTY CUBAN refugee teachers will receive special intensive training this summer at the State University of Iowa to prepare them to teach Spanish in U.S. public high schools. This training will be part of a cooperative program which will offer job resettlement benefits to the refugees and their dependents (about 120 persons). The State of Iowa, the university, and the Office of Education are financing the program. The Office is contributing $30,000 through an allotment received from the Welfare Administration of the U.S. Department of Health, Education, and Welfare. The allotment has been made under the provisions of the Migration and Refugee Assistance Act of 1962.

Participants in the program will include 6 teachers already teaching in Iowa schools and 24 others selected through the Cuban Refugee Center in Miami. On completing the course successfully, the teachers will receive emergency teaching certificates from the Iowa Department of Public Instruction and will be placed in the public high schools of the State.

The program will offer the participants instruction in English, education, methods of teaching Spanish in U.S. secondary schools, and the history, culture, and social structure of the United States.

The cost of library materials

UNTIL RECENTLY there was no way of saying with accuracy what a library had to pay for the average publication. But now, through a scientific study made by the Cost of Library Materials Index Committee of the American Library Association and published by the Office of Education, we know what the average book, periodical, and serial service have cost in recent years. The publication, "The Cost of Library Materials: Price Trends of Publications" (OE–15029A), reports on the cost of books, periodicals, and serial services for the years 1947–49 through 1960. The American Library Association and the Office of Education plan to update the study from time to time. The publication was prepared by Frank L. Schick, Assistant Director of the Library Services Branch in the Office of Education, and William H. Kurth, Chief of the Circulation Division, National Library of Medicine, Public Health Service.

From the study we know that the trend in the cost of books and other printed material is decidedly upward. From 1947–49 to 1962 the average cost of a book rose 62 percent ($3.49 to $5.81). The average cost of a periodical subscription rose 56 percent ($3.62 to $5.63). At the same time consumer prices rose only 28 percent. The trend continues upward. (See chart on p. 4.)

Survey of non-Western programs

BY FEBRUARY of 1964 the Office of Education will know the status of and prospects for non-Western studies in U.S. undergraduate colleges and universities. Through a contract with the Office under the Language Development Program of the National Defense Education Act, the American Association of Colleges is conducting a 1-year survey of undergraduate schools to find out what non-Western studies, including languages, they are offering, or what facilities and disposition they have for offering them. The survey will determine the institutions that have most effectively integrated non-Western cultural studies and languages into their curriculums and the problems involved in placing non-Western materials in curriculums. The survey will also draw up a report on the types of programs now being offered that seem to have the best prospects for success.

The facts obtained by the survey will provide colleges and universities with guidelines in extending their resources to include non-Western languages and studies.

Language institutes under study

THE MODERN Language Association of America is undertaking a study of the language institute program authorized by title VI of the National Defense Education Act. One part of the study will evaluate the effectiveness of the institutes sponsored since the program was authorized. The other part will evaluate the 79 institutes to be conducted this summer.

The association will send out a questionnaire to a sample of 1,500 foreign-language teachers who attended NDEA language institutes from 1959 to 1962 to obtain their estimates of the effectiveness of the institutes in improving their teaching. An analysis of the responses will be made and a report on the results submitted to the Office.

During this summer's institutes the association will send out panels of consultants to interview directors, faculty members, and students. A fall meeting of directors of the institutes will review the data obtained. The association will prepare a summary report for the Office that will list the best features of the summer institutes. The results of the study will assist the Office in the planning of institutes.

The entire project will be completed

by June 1964 at a cost of about $46,500 in funds provided under title VI of the National Defense Education Act.

Title VI language fellowships

FELLOWSHIPS for the study of modern foreign languages in 1963–64 have been awarded to 826 graduate students, either as first-time awards or as renewals. The total number of students who have received fellowships under NDEA, title VI, now stands at about 2,000.

The 1963–64 fellows will study 58 languages at 51 graduate schools. Almost 450 fellowships are renewals of awards made in one or more of the previous 4 years of the program. Approximately 70 percent of the fellows will study one of the languages classed as critical by the Commissioner of Education: Arabic (87), Chinese (100), Hindi-Urdu (54), Japanese (75), Portuguese (60), Russian (135), and Spanish (84).

Total cost of the awards for 1963–64 will be $3.2 million.

Arabic text to be developed

BY JANUARY OF 1965 the University of Texas will have developed a text of spoken Egyptian (Cairo) Arabic for college students through a grant from title VI, Language Development, of the National Defense Education Act. At present there is no adequate college-level text for intensive oral instruction in the Cairo dialect.

The university will develop a text covering 30 lessons, each in 2 parts—conversation and drill—for a 2-semester course. The text will include an outline reference grammar, a glossary, and notes on the major Arabic dialects and modern standard and classic Arabic. Tapes with multiple repetitions and spaces for student repetitions will accompany the text.

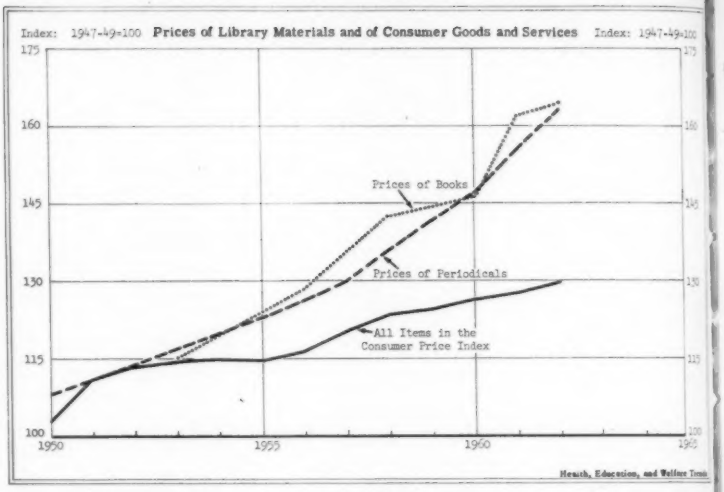
The project will begin on June 1 and will cost $24,166.

Sudanese program

THERE will be more participants from the Sudan than from any other country in the 10-week seminar on teaching methods for Technical Assistance Program participants at Stout State Teachers College this summer. The Office of Education's Division of Technical Assistance reports that it has 44 Sudanese on programs at the present time. Of these, 16 will be among the 30 participants from 6 countries attending the seminar at Stout.

Since the Sudan began taking part in the technical assistance program in 1959, about 100 participants have come to the United States. The Office has arranged programs for most of them. Nearly all the programs have been short-term—1 year to 18 months—technical training programs. Such short-term technical training programs were the original type of program arranged by the Office. Recently, requests from some countries have been changing to include long-term training and degree programs. (See *School Life*, January 1963, p. 30.) But the Sudan continues to request short-term technical programs for most of its participants.

Sudan's requests, of course, reflect its needs. Since gaining its independence in 1956, the republic has devoted a good part of its energies and resources to education. It has set a high priority on obtaining a supply of technicians to meet the needs of its expanding industry. Programs arranged by the Office of Education for Sudanese participants are aimed at giving the participants skill training at as high a level as possible, in keeping with the ability of participants and the time limit imposed. In addition, most participants receive instruction in teaching methods in seminars such as those Stout State Teachers College will offer this summer.



Since 1947–49 the price of books and periodicals purchased by libraries in the United States has risen over 60 percent. At the same time, the cost of all items in the Consumer Price Index has risen only 30 percent. **See story on page 3.**

Index of materials on deafness, speech, and hearing

THE U.S. Office of Vocational Rehabilitation has made a grant to Deafness Speech and Hearing Publications, Inc., to plan a new publication, *dsh Index*. The purpose of the new publication is to catalog all scientific writing on deafness, speech, and hearing published before 1960 (they go back to the ancient Greeks) and to cross index the material. *dsh Index* will supply in one volume a comprehensive reference to important works on these three subjects.

Deafness Speech and Hearing Publications, Inc., a nonprofit organization founded by Gallaudet College and the American Speech and Hearing Association, now publishes *dsh Abstracts*, abstracts of the current literature on deafness, speech, and hearing.

LEONARD M. MILLER

The dropout: Schools search for clues to his problems

This is one of two articles in this issue that emphasize the importance of getting the facts about dropouts. The second, by John F. Putnam, which focuses on definitions and computations, begins on page 24.

PETER IS A POTENTIAL DROPOUT. He is a 10-year-old fifth-grader, apparently has average intelligence, and so far has managed to keep up with his class—at least to the extent that he has been promoted with it every year. But the trouble he has always had with reading is getting progressively worse, and each day it widens the gap between him and the upper half of his class. The good behavior his teachers praised him for when he was younger has begun to look like apathy. This spring, his school says, he will have to be held back when his class passes on.

Many of the well-known signs of impending dropout are there. Peter's profile fits closely the profile of the dropout as State and national averages show it, not only because of what he does in school but because of what his home is like. Both his parents were themselves dropouts and both work long hours at odd jobs that require little more than physical strength. They have hardly any time at home for encouraging or helping their children.

Because Peter's circumstances are so typical of dropouts generally, his school has no difficulty in recognizing the danger he is in—and recognition of danger is usually the first step toward safety. But Peter's school, though no stranger to dropouts, has never been inclined to be analytical about them and as a result is not particularly sensitive to danger signs other than the stereotypes. As surely as Peter will drop out before he completes high school, just as surely his school has potential dropouts it does not yet recognize as such. And as long as the school does not recognize them, it is losing time it could use to help them.

Fortunately, all of the school's time has not yet run out: as long as pupils are only potential dropouts, the school still has an opportunity to discover their plight and find ways to hold them. And for each one the school holds, it reduces, by one, the frightening total of 7½ million who, the Labor Department estimates, will drop out of school between the beginning and the end of this decade.

I begin with Peter—with one child—for the plain reason that the total number of dropouts in this decade will be amassed in no other way than by adding, hour by hour and day by day, one child to another. I begin with Peter as a small antidote for our growing inclination to talk about the dropout problem in the mass, to talk about mass solutions as if mass solutions were possible. We forget too often that each dropout is an individual person and therefore different from all other persons, that he drops out not because of some overwhelming circumstance in our society but because *for him as a person* something has gone wrong. True, that "something" may well be the result of some overwhelming circumstance in our society, but we still live in a world where adults can and are obliged to interpose themselves between a child and danger.

I do not mean to minimize in any way the importance of national and other large studies of the dropout problem, nor the importance of large efforts to find solutions. But most of the concern of government and industry and the Nation as a whole is an economic concern, born out of a desire that this country be strong and great and efficient. The concern of the school, in contrast, is more with the pupil as an individual and with his right to develop his faculties to the highest possible point.

Perhaps the great variability we are beginning to discover in dropouts is what discourages us sometimes from trying to discover what makes a dropout a dropout. But not to try is to abdicate a responsibility. The school is a steward of the treasure this Nation has in its children, and the school must account for its stewardship. It is obliged to be methodical in the matter; and method requires that nothing be guesssed at and that everything be measured and accounted for—insofar as it is humanly possible to measure and account for.

Mr. Miller is specialist in counseling techniques, Office of Education. His experience includes counseling and guidance in the university, the State department of education, and the public schools. He is a member of the Subcommittee on Transition from School to Work, which is part of the Federal Government's Interdepartmental Committee on Children and Youth.

Only by highly objective measuring and accounting for can the schools eventually get to the bottom of their all-too-frequent failure to hold all pupils until the end of the course. The highly individual nature of each potential dropout's problem persistently brings us back to the responsibility of his school. For the problem can be attacked intelligently only in his school, where he is, where he can be observed, and where he can be helped.

Fortunately, a great many schools are feeling their responsibility in this matter, and are exerting themselves to collect as much information as possible about their pupils that might prove germane to their performance in school. For pupils who have already dropped out, they are taking care to record all items of information that could possibly offer a clue to the causes of dropout or to the steps that might be taken to prevent dropouts. They are defining the scope of their problem by keeping new and discriminating accounts of all pupils who enroll and withdraw; and they are searching for meaning in their accounts.

The following paragraphs point out a number of different approaches that State and local school systems are taking to an analysis of their dropout problems. They give examples of the forms and resources that these systems have used in collecting and analyzing information. [The published sources of information used by Mr. Miller are listed at end of article.—Ed.]

State of Maryland

A recent study by the Maryland State Department of Education illustrates the attention that is being given in many places to the characteristics of the dropout. Who is he? What are the conditions in himself and in his environment that might dispose him toward dropping out? The study has turned up some interesting facts that will long be helpful both to the State and to the local schools in

Table 1. Reasons for withdrawal given by pupils who dropped out of Maryland public high schools during the year ending June 30, 1961, by color and sex of dropout

Reason	All dropouts		White dropouts				Negro dropouts				Number not reported by sex or color
			Male		Female		Male		Female		
	Number	Percent of total [1]	Number	Percent of total [1]	Number	Percent of total [1]	Number	Percent of total [1]	Number	Percent of total [1]	
Lack of interest	4,792	35.3	2,184	41.3	1,216	30.4	719	38.9	400	23.1	273
Lack of scholastic success	2,386	17.8	1,190	22.5	514	12.9	388	21.0	201	11.6	93
Cost of going to school and other economic reasons	1,494	11.1	464	8.8	391	9.8	277	15.0	292	16.9	68
Marriage	1,243	9.2	59	1.1	1,074	26.9	7	.4	75	4.3	28
Pregnancy	715	5.3	.....	.....	170	4.2	.....	.....	512	29.5	33
Committed to institution	605	4.5	174	3.3	97	2.4	193	10.4	92	5.3	49
Military service	549	4.1	447	8.5	.....	.....	90	4.9	.....	.....	12
Poor health	426	3.1	104	2.0	178	4.5	12	.7	81	4.7	51
Parental indifference	340	2.5	159	3.0	137	3.4	20	1.1	14	.8	10
Misbehavior	312	2.3	202	3.8	37	.9	51	2.8	5	.3	17
Emotionally disturbed	289	2.1	126	2.4	98	2.5	24	1.3	33	1.9	8
Lack of suitable program	196	1.4	123	2.3	44	1.1	4	.2	12	.7	13
Socially maladjusted	181	1.3	51	1.0	39	1.0	61	3.3	16	.9	14
Not stated	186	.....	53	.....	36	.....	44	.....	40	.....	13
Total	13,715	100.0	5,337	100.0	4,031	100.0	1,890	100.0	1,773	100.0	682

[1] The base on which the percentage is computed includes only the dropouts who gave reasons for withdrawal. It excludes "Not stated."

cipal reason behind each dropout in until they graduate.

Counselors in the State's 24 local school systems gathered data from a representative sample of the 13,715 pupils who dropped out of school during the year ending June 30, 1961. The sample was selected in such a way that it could be used to analyze dropouts not only for the State as a whole but by the size of school district; and, since it included pupils who dropped out in each of the 12 months, it provided information useful also in analyzing the summer dropout problem. Each principal was asked to make a special effort with his staff to account for all pupils who had not returned to school in September.

The counselors determined the principal their efforts to keep pupils in school the sample, found that lack of interest outweighed every other reason, for both boys and girls, for both the white and the Negro (table 1). Other schools that have studied their dropouts' reasons have discovered something similar, though some have called it by other names, such as "dislike of school." Both "lack of interest" and "dislike of school" no doubt mean different things to the different pupils using them, but counselors generally consider that pupils use either term to cover one or more of several more specific reasons, such as being discouraged over their progress, disliking a certain teacher or subject, seeing no practical value in the subjects they are taking, or feeling ex-

cluded from the social life of the school.

(The items listed in the foregoing table are among the ones usually listed in the reporting forms that State and local school systems have developed in their efforts to arrive at reliable conclusions about the causes of dropout. School systems planning to collect and code such information will be interested in the list of reasons reported in Dr. Putnam's article, beginning on page 24; this is the list drawn up by the national cooperative project, sponsored by the Office of Education, on accounting for pupils.)

In their search for characteristics of dropouts, Maryland schools gathered data on these items (each item is accompanied here by one or two of the outstanding findings):

Age: 72 percent, either 16 or 17 years.
With whom living: 91 percent, with parents or with parent and step-parent.
Status of parents: 72 percent, parents living together.
Source of family income: 52 percent, the father; 13 percent, the mother; 27 percent, both.
Occupation of head of household: 46 percent, unskilled; 41 percent, skilled, or in selling or service occupations; 6 percent, owner or manager of a business or member of a profession.
Education of the father: At least 63 percent, no more than 9th grade.
Education of the mother: 57 percent, no more than 9th grade.
Hours per week the pupil had been employed: 71 percent, none.
Previous suspension: 76 percent, none.
Participation in athletics: 70 percent, none.
Other extraclass activities: 69 percent, none.
Grade in school: 12 percent, grade 8; 19 percent, grade 9; 27 percent, grade 10; 22 percent, grade 11; and 12 percent, grade 12.
Courses: 46 percent, general course; 19 percent, commercial.
Attendance: 60 percent, irregular in preceding year; 72 percent, irregular in current year.
Mental ability: 50 percent, below average.
Achievement in terms of ability: 56 percent, less than normal.
Reading grade level: 10 percent, below 3d grade; 36 percent, 3d to 6th.
Failures during last marking period: 47 percent, 3 or more; 14 percent, 2; 12 percent, 1.
Retentions: 64 percent, none in elementary school; 60 percent, none in junior high.
Conferences about withdrawal: 49 percent, with counselors; 18 percent, with administrators; 21 percent, none.
Contact between school and parent: 80 percent, yes.

Table 2. Dropout and graduation rates in Tucson public high schools, 1960–61, and socioeconomic data on city population, by groups of Census tracts, 1960

Census tracts by groups [1]	Census data					High school data	
	Total population (240,473)	Median years of school	Median income	Percent of housing deteriorating or dilapidated	Percent of adults separated or divorced	Percent of students enrolled who dropped out	Percent of students who graduated from high school [2]
I	28,195	8.4	$3,669	43.2	8.1	17.1	37
II	44,052	10.2	4,726	24.3	5.0	10.5	58
III	39,996	11.8	5,308	10.1	4.6	10.4	75
IV	47,863	12.3	5,873	2.5	3.6	7.0	70
V	80,367	12.6	6,804	6.2	4.2	3.7	90

[1] For convenience in analyzing data, Tucson divided the 45 census tracts in the city into 5 major groups on the basis of proximity of the tracts and degree of similarity in the population in income, educational achievement, and housing conditions.
[2] Based on number who entered high school 4 years earlier.

Source: Census data are from "U.S. Census of Population and Housing, 1960: Final Report PHC (1)–161, Tucson, Arizona, Standard Metropolitan Statistical Area." School data are from the records of the Tucson public school districts.

Utah

Utah has made a similar analysis of its dropouts. The report compiled in 1962 by the Department of Public Instruction on a study of the characteristics of 616 dropouts in the State includes some items not usually included in such studies; for example—

Number of student-initiated interviews with the counselor?

171 dropouts, none
94, one
97, two
87, three
44, four
17, five
69, six or more
37, no report

Automobile ownership?

127 own or are paying for a car
201 do not own but use another's
275 do not use
13, no report

Parents' opinion about pupil's dropping out?

102, definitely against
167, moderately against
144, passive
113, moderately in favor
49, definitely in favor
41, no report

Tucson, Arizona

Tucson has used the Census Bureau's data on the social and economic conditions of the city's population in its study of the causes of students' dropping out of school. Tucson officials have compared the graduation and dropout rates in the public high school in school year 1960–61 with the socioeconomic conditions in the city's 45 census tracts. The comparison reveals a significant relationship between the dropout and his community—between the dropout and the education, income, and marital status of the people around him (table 2).

Dade County, Fla.

The public schools of Dade County, Fla., are approaching the end of a 3-year longitudinal study of dropouts. They began on "Census Day," September 20, 1960, when they took a 20-percent random sample from each of two groups of pupils—their 7th-graders and their 10th-graders.

The 7th-grade sample, taken from the 37 schools that had this grade in the fall of 1960—3 elementary schools, 29 junior high schools, and 5 junior-senior high schools—began

Continued on p. 30

ALLAN R. LICHTENBERGER

Principles for a program of comparable information

THE U.S. Office of Education has participated actively for more than a decade in a cooperative program designed to establish a fundamental language for the records and reports of American education. This program is guided by principles established through many years of experience.

The principles

Items of educational information need to have the same meaning throughout the land. They must therefore be identified, defined, and recorded universally as defined.

> **Items of educational information can be comparable only when they are recorded at their sources on the basis of standard definitions.**

Standard classifications of items of educational information are as fundamental to the achievement of comparability as are standard definitions of the items themselves. Treated apart from its standard classification category, an item of educational information has little or no meaning.

> **Items of educational information must be arranged in classifications which are as clearly identified and defined as the items they contain.**

Classification categories must facilitate the combining and relating of educational information to achieve the purpose of educational accounting.

> **In each area of educational information, the categories must be so classified that information in all of the areas can be quickly and significantly related.**

Nationally comparable items of educational information must meet the needs of the States and their school systems as satisfactorily as they meet national needs. It is essential that local school districts and the States have specific and certain means through which to participate in identifying, classifying, and defining all items of educational information they are expected to maintain and communicate in comparable form. The means must be a cooperative process insuring that each item is adequately defined and so well understood that its acceptance is not in doubt. The achievement of universal understanding and acceptance of all defined items and their purposes makes standard definitions an absolute necessity.

> **A cooperative process, nationwide in its scope, through which items of educational information are defined, is essential to an understanding and acceptance of standard definitions.**

Without comparability in the thousands of items that must be maintained by local school systems, no State agency can combine them or derive information from them to produce educational information having national uniformity.

> **When items of educational information have uniform meanings, the combinations of these items are comparable.**

Education in the United States is historically a State function. Local school systems must maintain accounting systems as mandated by the State. State education agencies provide leadership and service essential to the achievement of nationwide comparability of educational information.

> **State education agencies determine to a major extent the degree to which cooperatively defined items of educational information become a part of records and reports.**

Only when cooperatively defined items of educational information are used as defined by all school systems, States, national educational organizations, and national agencies for education can a high degree of comparability of educational information be achieved.

> **The degree of comparability of educational information depends on the extent to which standard definitions approach universal use.**

It has been repeatedly demonstrated that national e

Mr. Lichtenberger, specialist in standard terminology and definitions, came to the Office of Education from the Nebraska State Department of Education, where he had been director of research and statistical services. In the Office he is head of the unit developing handbooks of standard terminology for educational records and reports.

forts to achieve comparability of educational information have languished when coordinating and supporting services have not been provided at the national level. The participation of the U.S. Office of Education in a cooperative program to establish a fundamental language of education for nationwide use is as vital to the success of the program as is the participation of local and State agencies, and of national educational organizations. In a statement made by the Council of Chief State School Officers in 1929, this fact was recognized:

". . . In view of the existence of forty-eight distinct state school systems in this country, the problem of a nation-wide system of educational statistics becomes one of mutual state approach and accomplishment with or without the aid of the federal government. Since, however, the very problem is that of a federal system of educational statistics and this in itself is possible only to the degree that uniformity exists among the states, the participation and aid of the federal government comes to be an essential . . .[1]

Coordination and service at the national level is essential to the success of a national program designed to achieve comparability of educational information.

The handbook program

At the request of the States, the U.S. Office of Education is coordinating a cooperative program being conducted to develop national handbooks of standard educational terminology. From its inception in 1951, the program has been guided by the principles enumerated in this article. The original plan, carried out step by step, has produced four handbooks which now serve the Nation as basic guides to educational accounting in their respective fields.

Handbook I, *The Common Core of State Educational Information*,[2] published in 1953, is a guide to States in their reporting of educational information. Upon the completion and acceptance of this handbook, the Council of Chief State School Officers, at its annual meeting in June 1953, adopted the following resolution:

> We recognize the importance of adequate educational accounting. We urge, therefore, that the State and territorial departments of education make prompt and complete use of the common-core terminology for comparable statistical information developed cooperatively by the U.S. Office of Education and the State and territorial departments to the end that information in local, State, and Federal reports will be more meaningful.
>
> We urge also that the U.S. Office of Education continue its important work in developing an adequate system of financial, personnel, and property accounting for use in all States. We pledge our continued cooperation in this endeavor.

Handbook II, *Financial Accounting for Local and State School Systems*,[3] published in 1957, identifies and defines standard receipt and expenditure accounts, and items of finance information and terminology to be maintained in comparable form by all school systems and States.

A supplement to Handbook II, entitled *Financial Accounting for School Activities*,[4] published in 1959, presents standard classifications and definitions of accounts for handling receipts and expenditures for school activities.

Handbook III, *Property Accounting for Local and State School Systems*,[5] identifying, classifying, and defining items of information about school land, school buildings, and school equipment, was published in 1959, to serve as the Nation's basic guide to school property accounting.

Two handbook projects are now nearing completion. One is on staff accounting, the other on pupil accounting.

Looking ahead

When the currently developing handbooks are published, a project to develop a handbook to serve as the basic guide in instructional program accounting will be started. Its publication will complete the series of basic handbooks planned to establish the foundation for achieving comparability of educational information throughout the country.

New handbooks dealing with special areas of instruction and school system operation will be developed. In addition, the published handbooks will be revised as changing educational reporting needs are recognized.

To an increasing degree comparable educational information is now becoming a reality. There have, however, been enormous problems in bringing about changes in the

[1] *Report of the Committee on Reports of State School Systems*, National Council of State Superintendents and Commissioners of Education, 1929.

[2] *The Common Core of State Educational Information*, Paul L. Reason, Emery M. Foster, and Robert F. Will, State Educational Records and Reports Series: Handbook I, Bulletin 1953, No. 8.

[3] *Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts*, Paul L. Reason and Alpheus L. White, State Educational Records and Reports Series: Handbook II, Bulletin 1957, No. 4.

[4] *Financial Accounting for School Activities*, Everett V. Samuelson, George G. Tankard, Jr., and Hoyt W. Pope, State Educational Records and Reports, Bulletin 1959, No. 21.

[5] *Property Accounting for Local and State School Systems*, Paul L. Reason and George G. Tankard, Jr., State Educational Records and Reports Series: Handbook III, Bulletin 1959, No. 22.

accounting systems of school districts and the States. Marked impetus to the solution of these problems is being provided through the assistance and services of title X (section 1009) of the National Defense Education Act. Evidence indicates that the cooperative efforts of local, State, and national agencies for education are producing improved educational information.

Each of the handbooks in the State Educational Records and Reports Series has been developed through the application of basic principles. The handbook on pupil information offers a specific example of the developmental process. Ten national educational organizations [6] and the U.S. Office of Education have cooperated to bring this handbook to its fifth and final draft form. In addition to the conference of executive secretaries of the cooperating organizations, 12 conferences have been held for the purpose of reviewing the drafts of the handbook. Each conference has been attended by representatives of the cooperating organizations and by U.S. Office of Education specialists assigned to the project. The conferences in their chronological order are:

1. A planning conference: To decide on the scope and depth of the handbook and to determine the content.

2. A conference of technical consultants: To review the first draft of the handbook to determine whether its content offered a sound basis for use in pupil records and reports.

3. The first national conference: To review each item of the second draft of the handbook to determine whether definitions were accurate and the classifications of items sound.

4. The eight regional conferences: To review the third draft of the handbook and to provide opportunity for educators throughout the country to suggest improvements.

5. The second national conference: To review the fourth draft of the handbook for the purpose of resolving all issues, and to make final suggestions for improvement.

The first draft of the handbook was written following extensive study and research by U.S. Office of Education specialists, and according to the direction provided by the planning conference. Each draft has been rewritten following conference action. The final draft of the handbook will be submitted to the cooperating national educational organizations for their acceptance.

[6] American Association of School Administrators, American Personnel and Guidance Association, Association for Supervision and Curriculum Development, Association of School Business Officials of the United States and Canada, Council of Chief State School Officers, Department of Classroom Teachers of the NEA, Department of Elementary School Principals of the NEA, National Association of Public School Adult Educators, National Association of Secondary School Principals, National School Boards Association.

Each of the items in the handbook is in basic form, each meeting the criteria of being (1) important to school systems, (2) frequently needed for the exchange of pupil information among school districts and among States, and (3) maintainable as a record item. The items are established in classifications permitting functional interrelating information on pupils with other information.

When the items are universally used as defined, a major step will have been taken toward achieving a high degree of comparability of educational information in the United States. State education agencies, advantageously positioned as they are to promote use of the handbook items, have had a prominent part in the project. Their staff members, along with hundreds of other educators, have a high level of understanding of the handbook purposes as well as of the separate items in the product. Thus, the Handbook on Pupil Accounting for Local and State School Systems reflects the basic principles that guide the handbook program.

USIA textbook program

A MILLION COPIES of U.S. textbooks have now been produced and distributed by the oversea textbook program of the U.S. Information Agency. The millionth mark was reached in April with the publication of Isaiah Frank's "The European Common Market," in Spanish in Spain. Mr. Frank's study is one of some 200 titles translated into 18 languages and produced and distributed in 14 countries.

The program is financed by the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480), through which funds accruing to the United States from the sale of surplus agricultural commodities are used in the country owing them.

Titles produced and distributed by the program represent nearly all the subjects taught in U.S. schools and colleges. The largest numbers of titles are in the social sciences and the natural sciences. A project in Italy has produced a series called "Classics of Western Democracy," which contains excerpts from Jefferson, Hamilton, and de Tocqueville. An encylcopedia is being translated into Indonesian, Urdu, and Bengali. Recent titles added to the program and the languages into which they have been translated include Melville's "Billy Budd," Vietnamese; Patten's "Foundations of Embryology," Polish; Moon's "Modern Biology," Portuguese; and "The USA—Its Land—Its People—Its Industry," German.

The textbooks sell for 75 cents to a dollar each. Most purchasers are students or teachers.

BERT K. ADAMS AND JOSEPH A. PERKINS, JR.

Needed—better school financial accounting

The grumbling of the American public over the rising cost of education does not reflect a lack of confidence in our public school system, but it does indicate that the public wants to know that it is getting a fair return on its investment. School business is big business; it cannot run efficiently unless it follows sound business practices. In this article, the authors discuss one of the most important of these practices—financial accounting.

MOST SCHOOL ADMINISTRATORS work under severe handicaps in trying to give their school systems sound financial accounting systems. They work without adequate manuals or handbooks on school financial principles and procedures and without trained employees. They are under great pressure to spend the school's money on certain things—and school financial accounting systems is not one of them. In some States laws covering school financial accounting work against sound business practices.

There are no adequate manuals or handbooks on the *fundamental* principles and procedures of financial accounting written specifically for school officials. The Association of School Business Officials and the American Institute of Certified Public Accountants have recommended that public schools adapt municipal accounting principles and procedures to school use. Adapting these principles may help employees already trained in the fundamentals of accounting, but it will not help those with little training, and therefore will not get to the root of the problem. Several good advanced textbooks have come out recently, most notably Tidwell's "Public School Fund Accounting," [1] but no texts on fundamental principles applicable to schools.

Many school people believe that *Handbook II, Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts,*[2] is just such a handbook. It is not. *Handbook II* was prepared by the Office of Education in cooperation with five professional associations and published by the Office in 1957, as a financial accounting manual. Rather than being a manual of fundamental accounting principles and practices, it is a guide to receipt and expenditure accounting for local and State school systems, designed to improve comparability of data collected. It contains standard receipt and expenditure accounts, classified and defined, and definitions of other terms necessary to the effective use of the system. Its introduction points out the need for handbooks on such subjects as the general ledger, fund accounting, and financial statements. Since it was issued 5 years ago, 43 States have put *Handbook II* into effect or are in the process of adopting it. Some States have achieved 100 percent comparability for applicable minimum items; others only 20 percent. The average comparability for these 43 States is 60 percent.

We find from a study of many curriculums for the training of school business officials that colleges and universities have made only spotty and slow progress toward the inclusion of accounting for school finance in their programs. Graduates of many schools of education at all levels are going into administration ill equipped

MR. ADAMS, specialist in financial accounting in the State School Systems Section of the Office of Education's School Administration Branch, came to the Office in 1958 as finance officer in the Aid to State and Local Schools Branch. His previous positions include those of finance officer for the public schools of the District of Columbia and the Arlington County (Va.) public schools.

MR. PERKINS, specialist in educational financial management and accounting, in the same Office section, came to this position from the Cheltenham Township School District, Elkins Park, Pa., where he was business manager. Before this assignment he was the business manager of the southeastern off-campus centers of the Pennsylvania State University. Both Mr. Adams and Mr. Perkins are responsible for the cooperative project for the development of a handbook on fundamental principles of financial accounting for local and State school systems.

[1] Sam B. Tidwell, *Public School Fund Accounting.* Harper and Brothers, New York, 1960.

[2] Paul L. Reason and Alpheus L. White, *Handbook II, Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts,* Bulletin 1957, No. 4. Washington, D.C., U.S. Government Printing Office, 1957, $1.

for financial management, although it will be one of their prime responsibilities. In many instances, institutions of higher education are still "fence-sitting" on whether to include courses in financial accounting in their programs. Doing nothing does a great disservice to our public school systems.

Many State laws play havoc with or ignore sound accounting principles. Too often these laws, written expressly to govern State aid, make it difficult or even impossible for an accounting system to follow sound principles and procedures. In some States the laws place the responsibility for accounting for local school system funds under a local official who is not an employee of the school system. Too often, since he also has the responsibility for accounting for all branches of general government, he has neither the inclination nor the time to give special financial services to the various departments of government. In many cases "the pattern and quality of governmental accounting are strongly affected, probably adversely, by the methods of selecting persons responsible for it. In commercial accounting, natural ability, training, experience, and other constructive qualifications are normally the determining factors in selection of personnel. In governmental accounting practice, on the other hand, offices involving important accounting functions often have only the most superficial qualification requirements, such as citizenship, residence, and age." [3] School business officials are usually required to have considerably more than these minimal qualifications, but too often they are pulled from other government departments without being adequately trained for the new responsibilities they must discharge.

[3] R. M. Mikesell and Leon E. Hay, *Governmental Accounting*, 3d ed. Richard D. Irwin, Inc., Homewood, Ill., 1961.

Statistic of the Month

College students and faculty abroad

Thousands of U.S. college students studied abroad in 1960–61, and hundreds of faculty members from U.S. colleges and universities took foreign educational assignments.

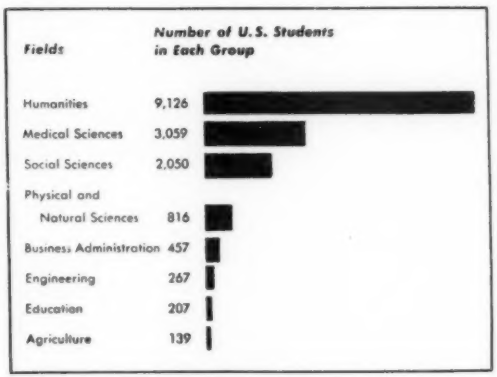
The students. **Twenty thousand students—30 percent more than in 1959–60—enrolled in 590 institutions of higher education in 66 foreign countries. Sixty-one percent studied in Europe; 19 percent in Latin America; 11 percent in Canada; and 5 percent in the Far East. More than 75 percent studied in these eight countries:**

3,717 in Mexico
2,906 in France
2,241 in Canada
1,701 in the United Kingdom
1,542 in Germany
1,116 in Austria
1,073 in Switzerland
1,061 in Vatican City

Of the 38 institutions enrolling 100 or more U.S. students, these 4 topped the list: Mexico City College, 3,428; University of Paris, 1,741; Pontifical Gregorian University, Vatican City, 918; and University of London, 731.

As the chart shows, the most popular field of study among U.S. students abroad was the humanities; the medical and social sciences were second and third.

The faculty members. **The number of faculty members who in 1961–62 took assignments abroad—2,427—was 9 percent larger than in 1960–61. They came from 433 institutions of higher education and went to 90 countries: 50 percent to countries in Europe; 16 percent in the Far East; 10 percent in Latin America; 8 percent in the Near and Middle East; and 7 percent in Africa. The largest numbers of faculty members went to the United Kingdom, Italy, France, Germany, and India.**



Most popular fields of study for U.S. students enrolled in institutions of higher learning abroad, 1960–61

Fourteen institutions in the United States each reported 40 or more faculty members abroad. Michigan State University was first with 206; the University of California, second with 100. The leading fields were the humanities, represented by 670 persons; the social sciences, by 552; and the natural and physical sciences, by 477.

These facts all come from *Open Doors 1962*, the latest annual report by the Institute of International Education, 800 Second Avenue, New York 17, N.Y. In October 1962 the *Statistic of the Month* drew on the same report to get the figures on foreign students in the United States.—Rose Marie Walker, educational statistician, Office of Education.

There are a number of reasons why our schools do not have adequate financial accounting. The most powerful force against improvement is the ignorance of the public and of many school administrators themselves on the importance of good school financial accounting. Too few people know that school financial accounting is not just a simple bookkeeping job. One State accounting manual, for example, in explaining the accounting system it establishes, says that the system "can be maintained by anyone having successfully completed a high school course in bookkeeping or having equivalent training." Even if the mechanics of accounting could be accomplished effectively by a high school graduate, such an attitude ignores the need for intelligent use of data developed from a system.

At the same time, accounting should not be allowed to be "the tail which wags the dog;" rather it should be stressed that accounting is one of the tools of good administration.

The accountant

To understand the size of the task of improving school accounting competency, we must know what a "school accountant" should be and what he actually is. As defined in the *Handbook for Staff Accounting for Local and State School Systems*, the school accountant is a staff member performing assigned technical duties such as planning and directing the keeping of financial, staff, pupil, or property records; summarizing, analyzing, or verifying such records; or controlling and certifying expenditures. Ideally, this person should have at least a bachelor's degree in business administration and a major in accounting. Ideally, the accountant will have taken some courses in educational philosophy and administration. As a minimum he must be sensitive to and supportive of the objectives of public education.

In practice, the public school "accountant" may be a young high school graduate with no education in business subjects. He may be a former elementary school teacher, a former high school principal, a former local businessman, or he may be the school board member who drew the short straw.

In a great many school districts the superintendent is also the accountant, since he is all things administrative. He is superintendent, director of instruction, business manager, accountant, board secretary, principal, part-time teacher, and officer in charge of whatever other duties arise. His secretary may be a part-time accountant in addition to her other duties.

Larger school districts may have both a business manager and an accountant, but too often neither is professionally trained in business administration or accounting. Usually, only those districts with full-time accounting staff members are likely to have trained and experienced accountants. These districts in terms of the number of districts are the exceptions. Although most school districts do not have these staff members trained, it must be said that the comparatively untrained people employed by thousands of districts perform fairly satisfactorily in controlling cash but provide little or no management information.

The objectives

Any program to improve financial accounting in public schools must take into consideration the objectives of school accounting. Tidwell lists them as these:

1. To provide a complete record of all financial transactions of the school district.

2. To summarize, with reasonable promptness, financial transactions of the public school district, in financial reports required by proper administration.

3. To provide financial information which would be helpful for budget preparation, adoption, and execution.

4. To provide financial controls or safeguards for public money and property.

5. To provide a basis whereby the board of education can place administrative responsibility and minimize the possibility of waste, carelessness, inefficiency, and possible fraud.

6. To provide clear and concise financial reports to the public as a basis for judging past, present, and future financial operation of the school district in view of legal restrictions placed upon such public funds.

7. To provide a historical record which, over a period of years, can be studied and analyzed critically and constructively for the purpose of aiding citizens, the board of education, and the school district's administrative officers in keeping pace with changing concepts of education and its administration.[6]

In addition, a good accounting system protects the integrity of the school administrator and others in charge of accounting for public school funds.

What is needed?

To attain these objectives we need—

1. A manual of fundamental financial accounting principles and practices for public schools, written in terms understandable to those inadequately trained for their jobs. It should contain basic concepts which will give the student a reasonable degree of proficiency in public school accounting. Such a manual will not, of course, take the place of a massive training program or employing a staff of competently trained school accountants. But

[6] Tidwell, op. cit., p. 4.

there are not enough trained people to fill the jobs, and not enough money to attract those who are trained, and yet we must fill this need.

2. The incorporation of courses in school financial accounting in programs for school administrators in colleges and universities. College educational administration departments and business administration departments should join with schools of education to develop curriculums for school financial accounting. Until they can design adequate courses, institutions should send students training for school business administration through the colleges or schools of business administration in their own institutions.

3. Greater effort on the part of State departments of education and the professional associations to increase inservice training of employees at all levels now handling school business. Leadership provided by the State education agency determines to a major degree the kinds and quality of accounting in local school systems. These agencies have a unique position in American education which puts upon each of them the responsibility for coordinating State and local educational accounting and statistical programs, and for providing leadership and technical assistance necessary to the implementation of statewide systems of educational accounting and reporting. State departments and associations can provide training to employees through regional, State, and national workshops, seminars, and short courses. Programs should emphasize both the fundamental principles and the use of data produced by a good financial accounting system.

In addition, schools and colleges of business administration should encourage students of accounting to enter the field of school accounting. School systems and school boards could make better and more use of local accountants and accounting firms.

To meet the first need the Office of Education has just started a cooperative project to develop a handbook on fundamental principles and procedures of financial accounting for local and State school systems. Cooperating with the Office of Education on this project are the American Association of School Administrators, the Association of School Business Officials of the United States and Canada, the Council of Chief State School Officers, the National School Boards Association, and the American Institute of Certified Public Accountants. These organizations will appoint representatives to a national committee which will advise the Office of Education's staff assigned to the project. The objective is to put into the hands of present and future school administrators a manual which would fill this need until the colleges, universities, and State departments of education can launch a major offensive to permanently solve the problem.

BONDS

for educational purposes

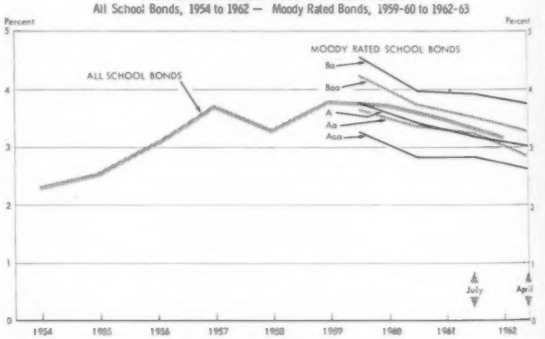
. . . sales, interest rates, et cetera . . .

Public schools

By ELMER C. DEERING, *specialist on the financing of school facilities, Division of Elementary and Secondary Education, Office of Education.*

AS A RESULT OF THE INCREASE in the average net interest cost of school bonds between 1954 and 1959—from 2.28 percent to 3.76 percent—school districts that sold bonds in 1959 have to pay, for every $1,000 bond they sold, an average of $14.80 more per year than school districts that sold in 1954. Districts that sold in 1962, though they pay $5.70 less than the districts that sold in 1959, pay $9.10 more than the districts that sold in 1954.

AVERAGE NET INTEREST COST OF SCHOOL BONDS
All School Bonds, 1954 to 1962 — Moody Rated Bonds, 1959-60 to 1962-63



For Moody-rated bonds, schools will be paying less on bonds they are selling this year than on those they sold in 1959–60, as the following tabulation shows:

Moody rating	Average annual interest on a $1,000 bond sold in—		Savings to schools at the 1962–63 rate
	1959–60	1962–63	
Aaa	$32.60	$26.40	$6.20
Aa	36.30	28.50	7.80
A	37.70	30.00	7.70
Baa	42.10	32.70	9.40
Ba	45.50	37.40	8.10

Since the average school bond sale is now about $1 million, the rates in 1962–63, when compared to rates in 1959–60, mean an annual saving of $6,000 to $8,000 a year for the average school system selling bonds this year. For the schools in the Nation as a whole they mean a saving of $20 million annually; even so, the interest costs are $15 million higher for this year's sales than they would have been under 1954 rates.

Average net interest cost of Moody-rated bonds sold on primary market for public schools, by rating only: Annual 1959–60 to 1961–62; monthly, May 1962 to May 1963

Period	Aaa	Aa	A	Baa	Ba	All rated bonds
1959–60	3.26	3.63	3.77	4.21	4.55	3.84
1960–61	2.82	3.34	3.43	3.75	3.97	3.48
1961–62	2.84	3.23	3.19	3.52	3.93	3.27
1962:						
May	2.56	2.95	3.03	3.34	3.80	3.13
June	2.82	2.83	3.14	3.48	3.93	3.21
July	.....	3.15	3.14	3.61	4.02	3.22
August	.....	3.02	3.08	3.43	3.82	3.17
September	2.83	2.80	3.08	3.47	3.75	3.10
October	.....	2.75	2.96	3.16	3.84	3.02
November	2.38	2.73	2.88	3.17	3.22	2.90
December	2.56	2.73	2.99	3.27	3.86	3.06
1963:						
January	2.53	2.79	3.00	3.28	3.78	3.02
February	2.68	2.77	3.00	3.25	3.73	2.99
March	2.47	2.76	2.93	3.22	3.61	3.00
April	2.73	2.87	2.91	3.21	3.54	2.92
May	.....	2.74	2.94	3.30	3.38	3.02

Source: Sales reported by The Daily Bond Buyer; ratings, by Moody's Investors Service (rated bonds include 75–80 percent of all bonds for public schools).

Average net interest cost of Moody-rated bonds sold on primary market for public schools, by rating and by term of bond, for the latest quarter and month available

Term of bond	Aaa	Aa	A	Baa	Ba	All rated bonds
	Latest quarter (January–March 1963)					
Under 15 years	2.25	2.38	2.58	2.78	3.10	2.54
15–24 years	2.64	2.82	2.99	3.21	3.53	2.96
25 years and over	.....	2.93	3.02	3.33	3.82	3.15
All terms	2.62	2.78	2.98	3.25	3.69	3.01
	Latest month (May 1963)					
Under 15 years	.....	2.56	2.57	3.03	.....	2.71
15–24 years	.....	2.75	2.94	3.19	3.38	2.96
25 years and over	.....	2.93	3.10	3.44	.....	3.28
All terms	.....	2.74	2.94	3.30	3.38	3.02

Source: Sales reported by The Daily Bond Buyer; ratings, by Moody's Investors Service (rated bonds include 75–80 percent of all bonds for public school purposes).

Colleges and universities

By W. Robert Bokelman, *chief, Business Administration Section, Division of Higher Education, Office of Education, and* Elmer C. Deering.

DURING APRIL 1963, institutions of higher education received $52.3 million from bonds sold to finance their capital programs. Public institutions received $36.0 million; private, $16.3 million. The average net interest rate for all the bonds was 3.34 percent. For bonds sold by public institutions, it was 3.33 percent; for bonds sold by private institutions, 3.35 percent.

All the bonds sold by private institutions were for auxiliary facilities only; bonds sold by public institutions were divided about equally between academic and auxiliary facilities. The Dormitory Authority of the State of New York sold $5.6 million to finance the construction of auxiliary facilities at Skidmore College, a private institution; the net interest rate was 3.27 percent, less than the present College Housing Program rate, which is 3.50 percent.

The College Housing Program (HHFA) purchased approximately $20.4 million of the bonds, or 38.9 percent of the total.

The table lists all the sales made in April, both for publicly controlled and for privately controlled institutions.

Bond sales for institutions of higher education in the United States, by institution, April 1963

Issuing agency	Amount sold (000)	Term	Average net interest cost	Use of funds
			Percent	
PUBLIC INSTITUTIONS	$35,977	.....	.....	
Troy State College	110	1–15	3.44	Student center.
Colorado State University	608	1–19	3.22	Residential.
	1,262	20–39	[1] 3.38	Do.
	203	1–39	3.46	Do.
	432	1–39	[1] 3.50	Do.
Florida State University	1,594	1–40	[1] 3.38	Do.
	220	1–40	3.37	Do.
Vincennes University	770	1–15	5.75	Instructional.
University of Kansas	20	1–8	2.79	Residential.
	33	9–18	3.25	Do.
	111	19–38	[1] 3.38	Do.
	331	1–23	3.32	Do.
Morehead State College	394	24–38	[1] 3.38	Do.
	215	1–38	[1] 3.38	Do.

For footnotes, see end of table.

Bond sales for institutions of higher education in the United States, by institution, April 1963—Continued

Issuing agency	Amount sold (000)	Term	Average net interest cost	Use of funds
			Percent	
University of Kentucky ..	1,200	1–25	3.38	Instructional.
Central Missouri State College.	176	1–8	3.47	Do.
	300	9–18	3.49	Do.
	1,024	19–38	[1] 3.50	Do.
	200	1–8	3.37	Do.
	336	9–18	3.38	Do.
	1,114	19–38	[1] 3.38	Do.
New York City.....	1,400	1–30	2.89	Instructional.
Ohio State University...	135	1–7	2.56	Residential.
	1,065	8–37	[1] 2.88	Do.
	250	1–12	2.83	Do.
	1,100	13–37	[1] 3.13	Do.
	1,330	28–37	[1] 3.50	Do.
	1,520	1–27	3.34	Do.
Southeastern State College.	740	1–26	3.66	Student center-residential.
State of Oregon.....	10,500	1–30	3.09	Multipurpose.
University of Tennessee..	550	1–30	3.60	Instructional.
University of Wyoming...	1,000	1–26	3.50	Residential.
	2,234	1–39	3.50	Do.
	3,500	1–39	3.50	Instructional.
PRIVATE INSTITUTIONS.	16,295	.....	.....	
Lake Forest University...	1,075	1–39	[1] 3.50	Residential.
Rose Polytechnic Institute.	450	1–38	[1] 3.50	Do.
Ottawa University.....	360	1–39	[1] 3.38	Student center.
Stonehill College.....	250	1–29	[1] 3.38	Do.
Mount Saint Mary College.	732	1–39	[1] 3.38	Residential.
Hartwick College.....	508	1–39	[1] 3.38	Do.
Skidmore College [2].....	5,580	1–31	3.27	Do.
Baldwin-Wallace College	1,500	1–38	[1] 3.50	Do.
Drexel Institute of Technology.	1,150	1–38	[1] 2.88	Student center.
York Junior College.....	425	1–49	[1] 3.38	Residential.
Marymount College (Va.).	1,200	1–38	[1] 3.50	Residential-dining.
West Virginia Wesleyan College.	1,265	1–38	[1] 3.50	Do.
The American University.	1,800	1–39	[1] 3.38	Residential.

[1] Purchased by Community Facilities Administration, HHFA.
[2] Publicly financed (by the Dormitory Authority of the State of New York).

Bonds sold for higher education: Number and amount of sales and average net interest cost, by type of institutional control, type of financing, type of bond, and type of facility to be constructed, April 1963

Type of institution, financing, bond, and facility	Bonds sold			Average net interest cost (percent)
	Number of sales	Amount (thousands)	Percent of amount of all sales	
PUBLIC INSTITUTIONS				
Type of financing:				
HHFA.....	11	9,641	26.8	3.33
Other.....	23	26,336	73.2	3.34
Type of bond:				
Revenue.....	32	24,077	66.9	3.47
General obligation.....	2	11,900	33.1	3.07
Type of facility:				
Academic.....	6	17,920	49.8	3.30
Instructional.....	5	7,420	20.6	3.61
Multipurpose.....	1	10,500	29.2	3.09
Auxiliary.....	28	18,057	50.2	3.36
Residential.....	26	17,207	47.8	3.35
Student center.....	1	110	.3	3.44
Student center-residential.....	1	740	2.1	3.66
Total, public institutions.....	34	35,977	100.0	3.33
PRIVATE INSTITUTIONS				
Type of financing:				
HHFA.....	12	10,715	65.8	3.39
Other.....	1	[1] 5,580	34.2	3.27
Type of bond: Revenue.....	13	16,295	100.0	3.35
Type of facility: Auxiliary...	13	16,295	100.0	3.35
Residential.....	8	12,070	74.1	3.36
Residential-dining.....	2	2,465	15.1	3.50
Student center.....	3	1,760	10.8	3.05
Total, private institutions.....	13	16,295	100.0	3.35
ALL INSTITUTIONS				
Type of financing:				
HHFA.....	23	20,356	38.9	3.36
Other.....	24	31,916	61.1	3.32
Type of bond:				
Revenue.....	45	40,372	77.2	3.42
General obligation.....	2	11,900	22.8	3.07
Type of facility:				
Academic.....	6	17,920	34.3	3.30
Instructional.....	5	7,420	14.2	3.61
Multipurpose.....	1	10,500	20.1	3.09
Auxiliary.....	41	34,352	65.7	3.36
Residential.....	34	29,277	56.0	3.35
Residential-dining.....	2	2,465	4.7	3.50
Student center.....	4	1,870	3.6	3.07
Student center-residential.....	1	740	1.4	3.66
Total, all institutions.....	47	52,272	100.0	3.34

[1] Bonds issued by the Dormitory Authority of the State of New York.

JOHN E. BEAN

Research in the State department of education

STATE departments of education have taken a new look at educational research and have recognized new responsibilities for leadership. These are outlined in a policy statement developed by the Study Commission of the Council of Chief State School Officers (CCSSO). The rationale of their concern is stated thus:

> The State department of education occupies a central position in the State system of public education. Two important factors account for this position of leadership. First, education is legally and constitutionally a State function, and State legislatures have delegated to the department the responsibility of regulating and supervising education within the State. Implicit in this legislative mandate is concomitant responsibility for the improvement of education.
>
> Second, the State department of education is the one agency strategically situated in State government to provide statewide leadership in promoting sound educational programs in local school districts. The internal organization of the department and the lines of communication originally set up to facilitate a regulatory function are appropriate also for the exercise of leadership in all activities designed to improve education. Charged as it is with both legal and logical responsibility for educational leadership, the State department of education is necessarily concerned with research.[1]

Departmental research activities

Several types of related research activities are suggested in the policy statement as appropriate for State departments of education. They are summarized below.

★ The department may *conduct research* pertaining to its functions. Increasingly, administrators and State legislators are recognizing that research is an essential component of program planning and development. Policy formulation, legislative recommendations, regulatory operations, and the administration of the State system of education must all be supported by research if the department is to achieve maximum effectiveness. In addition, the department has an increasingly important role in the development, evaluation, and implementation of new and improved instructional programs.

★ The department may *coordinate research activities* within its operating divisions and among the various agencies under its jurisdiction. Many factors must be taken into account in planning and executing a departmental research program if available resources are to be utilized most efficiently, including administrative and regulatory responsibilities, cost and value of proposed research, staff interests and competence, and needs of the instructional and supporting programs supervised by the department. The formulation of long-range research plans, establishment of priorities, and coordination of effort require the cooperation of all concerned. Such cooperation can probably be accomplished most effectively through the organization of a departmental committee to coordinate research.

★ The department may *provide consultant assistance* in research design and analysis. Competence in research is developed through a combination of technical instruction and practical application. Departmental staff members, local district teachers, and administrators on all levels should be encouraged to develop research projects and conduct studies relating to their professional duties. Research specialists on the department staff can assist them in the planning, supervision, evaluation, and interpretation of their projects.

★ The department may *provide inservice training* in research techniques. The consultant assistance provided by departmental research specialists may be considered as a type of inservice training. The development of de-

Dr. Bean is a specialist in State education programs, Administration Branch. He came to the Office of Education from the Utah State Department of Public Instruction, where he was director of research. A native Oregonian, he has been a classroom teacher, administrator, assistant professor of education, and education technician in the AID mission to Iran. He served as consultant to the Study Commission of the Council of Chief State School Officers in the development of the policy statement which has provided the basis for this article.

[1] Council of Chief State School Officers, *State Department of Education Leadership Through Research*. Washington, D.C., 1963.

sired research competence may be accelerated, however, through a systematic program of training in the principles and processes of research, perhaps in a series of research workshops, seminars, courses, or conferences, sponsored by the department. These could be conducted in the department, in universities, or in local school districts and geared to the needs of the participants as both producers and consumers of educational research.

★ The department may *evaluate research studies* of significance to education. It is true, as often stated, that much valuable educational research is never translated into classroom or administrative practice. It is equally true that much research should not be permitted to influence practice. Although the department cannot possibly collect, evaluate, and interpret all research findings available through university graduate schools, professional journals, and various educational organizations, staff members should insofar as possible evaluate the most important projects and studies within their areas of specialization. University professors, local district staff members, and others competent in educational research may assist in the evaluation.

★ The department may *disseminate research findings*, based on the evaluation of research studies and experimental projects, and suggest application in local school districts. All practical means of dissemination should be explored and utilized: Personal contacts, conventions, institutes, workshops, committee meetings, observations, publications, and particularly demonstration projects. Since it is also important for boards of education, community groups, and lay citizens interested in education to understand research findings, it is well worth the time and effort necessary for the department staff to translate significant research studies into nontechnical language meaningful to both supporters and critics of the schools.

★ The department may *stimulate research* throughout the State. Few departments, if any, possess the staff and financial resources necessary to conduct all research which may be desirable. The department may, however, extend and supplement its resources by encouraging local school districts, colleges and universities, and other organizations to undertake projects and studies. Departmental assistance to researchers may take several forms, depending on available resources and the nature of the proposed research. For example, the department may allocate funds, lend facilities and equipment, offer technical assistance, or waive regulations for experimental projects.

★ The department may *support research* with adequate commitment of its resources. If the department is to be fully effective, the State must appropriate funds sufficient to cover normal departmental research needs and incidental legislative requests. Furthermore, it is necessary that State funds for research be provided on a continuing basis if the department is to make long-range plans and commitments. The department may also subsidize some research by other organizations within the State, on the initiative of either the organizations or the department. Short-term and special-purpose research funds may be available to the department and other eligible recipients in the State through various grant programs of the Federal Government and private foundations if they meet such criteria as project significance and investigator competence. The department may work with universities, local school districts, and other groups in seeking such funds.

Statewide cooperation

The CCSSO policy statement recognizes that the State department of education shares with many organizations a common interest in improving education. Among these are colleges and universities, local school districts, school district groups, interstate groups, legislative councils, professional groups, private foundations, the U.S. Office of Education and other Federal agencies. Whether directly or indirectly involved in research, each organization is concerned with the implications of research in particular fields, and each should have the opportunity to participate in the total State research effort. The department should exert strong leadership in providing for statewide planning and voluntary coordination of effort among the various research-oriented organizations. The policy statement suggests that this may be achieved under the aegis of a State educational research council, composed of representatives of each organization and tailored to the particular research environment within the State.

Typical activities of a State educational research council might include an inventory of current research activities within the State, an evaluation of the research potential of member organizations, a survey of major State educational problems which are amenable to research, the establishment of priorities, the assignment of responsibilities, and the provision for effective lines of communication, all within the framework of a comprehensive State program of educational research. An effective council could strengthen the department and each of the other constituent organizations by providing for professional development and maximum utilization of available resources. It could contribute immeasurably to the common goal of providing the best education possible for children and youth of the State.

CHANNELS OF COMMUNICATION

A monthly report on programs and developments both in and outside the Office of Education that are related to the educational uses of television, motion pictures, teaching machines, language laboratories, and other media of communication.—By SETH SPAULDING.

Educational Broadcasters

The National Association of Educational Broadcasters is planning to hold a seminar on educational radio this summer at the University of Wisconsin. The purpose of the conference will be to take a searching look at educational radio in an effort to determine whether it is being properly used to do the jobs in education that it can do best. One of the problems to be considered will be that of finding qualified workers to staff educational radio stations.

On May 1 the NAEB completed a nationwide inventory of persons working in educational television, conducted under a title VII, National Defense Education Act, contract. The project gathered information about educational broadcasters, teachers using educational television, teachers doing air work, and specialists in related professional fields whose talents might be used to advantage in educational television. The study will furnish information about the areas of strength and weakness in the profession and will facilitate further studies of the types of educational training necessary to train the manpower needed by the ever-expanding educational television field.

As an adjunct to the project, the NAEB will publish and make available for purchase a directory of educational broadcasting personnel (both television and radio).

In mid-May, the association held a conference on instructional radio and television at the University of Illinois on all aspects of the use of radio and television (both broadcast and closed circuit) for direct instruction. Some 200 educational broadcasters, teachers, curriculum supervisors, and educational administrators from all over the United States attended. A report of the conference should be available by July.

Operation Alphabet

Operation Alphabet, a television literacy education series developed by the school extension division of the Philadelphia public schools and sponsored by the National Association of Public School Adult Educators, offers the illiterate an opportunity to learn basic reading and writing skills in his own home through television. It is a series of 100 half-hour television programs on videotape, offered to television stations without charge through a grant from the Annenberg School of Communications of the University of Pennsylvania. NAPSAE has prepared a home-study book containing 100 printed lessons based on the televised lessons. The book reinforces and supplements what the learner sees and hears on television. The association has also prepared a packet of promotional material designed for the illiterate.

A learner who follows the program conscientiously will reach a third-grade reading and writing level at the end of the 100th lesson. At this point, the project encourages him to enroll in a formal education class so that he can progress on through the eighth grade and beyond.

About 40 cities, including nearly all of the largest, have shown Operation Alphabet, and some have scheduled a second showing, since NAPSAE recommends at least two showings.

One object of the program is to crumble the illiterate's barrier of self-consciousness so that he will enroll in formal education. There is evidence that this is happening. In Philadelphia enrollments in adult elementary education classes rose 25 percent after the first showing; in Cincinnati, 21 percent. Kansas City, Mo., estimates that it has reached 8,000 of its 25,000 illiterates.

Philadelphia is working on a second series, to begin where the first ends and to work up through the sixth grade.

Operation Alphabet is not a substitute for formal instruction under the guidance of a trained teacher. It is rather a supplement to formal instruction and a stimulant to the illiterate to receive formal instruction.

Regional media planning

A major title VII, part B, contract for "A Regional Project To Assist the Planning and Development of Interinstitutional Use of Recorded Materials and New Media," has recently been negotiated by the Office of Education with the Southern Regional Education Board.

The project has three major objectives: (1) To develop patterns of interinstitutional cooperation in planning, producing, using, and revising recorded materials for television and other media; (2) to help interinstitutional groups to plan, produce, use, and revise recorded materials for radio, television, and other media; and (3) to gather information that will be useful in subregional and interinstitutional planning and development (among the activities that will be included for accomplishing the third objective will be a survey of closed-circuit television systems in educational use).

The project will establish a 2-year

Dr. Spaulding is chief, Research and Services Section, Educational Media Branch, Office of Education.

regional program to assist approximately 7 subregional units in 16 States (Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia). Additional information may be obtained from William Bowden, associate director for regional programs, Southern Regional Education Board, 130 Sixth Street NW., Atlanta 13, Ga.

"Television Education for the Health Professions in the South," a special issue of the board's bulletin, *Educational Television*, can be obtained from the board.

New York project on the arts

With the support of title VII, the New York State Education Department is undertaking a demonstration of the use of new media packages to culturally enrich the curriculum of public schools in the State. The project will bring the arts to the ninth-grade student so that he can attain the highest possible degree of sensitivity to his culture. To accomplish this end, the project will integrate the arts into English courses, social studies, science, homemaking, and industrial arts courses. Experiments will be conducted in 12 schools; about 3,000 students and 200 teachers will participate. Cultural enrichment materials will be introduced to participating classes through a "package"—a group of audiovisual and other materials used in accordance with a curriculum guide so that the teacher commands a large variety of teaching aids that are readily available. The package will contain copies of small visual aids (filmstrips, records, tapes) on music and visual and theater arts which will be kept in the school or classroom; and other media materials (films, kinescopes, traveling exhibits) which will be circulated from school to school. The program will also give the student an opportunity to enjoy art through such means as television.

The department will report on the project and will prepare study guides for integrating cultural materials into the curriculum, so that other teachers throughout the country can use the successful techniques developed by the project.

For further information, write to Robert Brown, New York State Education Department, Albany 1, N.Y.

New books on the media

Office of Education

The Use of Programed Instruction in U.S. Schools (OE–34022), U.S. Government Printing Office, Washington 25, D.C., 35 cents. This publication was prepared by the Center for Programed Instruction, Inc., of New York, under a title VII, part B, contract. It is a survey on how programed materials are being used in U.S. schools and a report on the reactions of teachers, administrators, students, and parents to the use of such materials.

Language Laboratory Facilities (OE 21024), U.S. Government Printing Office, Washington 25, D.C., 50 cents. Prepared under contract with the Electronic Industries Association by Alfred S. Hayes, this report on a title VII, part B, project is a technical guide for the selection, purchase, use, and maintenance of language laboratory equipment and facilities.

Motion Picture Production Facilities of Selected Colleges and Universities (OE 51005), U.S. Government Printing Office, Washington 25, D.C., $1.25. This survey, which was conducted under a title VII, part B, contract, shows the history and growth of the university film production movement, organizational and administrative patterns, and attitudes toward the production and use of films.

Commercial publishers

Baker, Frank, *Visual Communications International.* Hastings House Publishers, 151 East 50th Street, New York 20, N.Y.

Barnouw, Erik, *The Television Writer.* Hill & Wang, 141 Fifth Avenue, New York 10.

Bretz, Rudy, and Edward Stasheff, *The Television Program—Its Direction and Production.* Hill & Wang, 141 Fifth Avenue, New York 10, N.Y.

DeKieffer, R. E., and Lee W. Cochran, *Manual of Audio-Visual Techniques.* 2d ed., Prentice-Hall, Inc., Englewood Cliffs, N.J.

Huebener, Theodore, *Audio-Visual Techniques in Teaching Foreign Languages,* New York University Press, Washington Square, New York 3, N.Y.

Kehoe, Vincent J-R., *The Technique of Film and Television Makeup.* Hastings House Publishers, Inc., 151 East 50th Street, New York 22, N.Y.

Meaney, John W., *Televised College Courses,* The Fund for the Advancement of Education, 477 Madison Avenue, New York 22, N.Y.

Millerson, Gerald, *The Technique of Television Production.* Hastings House Publishers, Inc., 151 East 50th Street, New York 20.

Nisbett, Alex, *The Technique of the Sound Studio—Radio and Recording.* Hastings House Publishers, Inc., 151 East 50th Street, New York 20, N.Y.

Pittaro, Ernest M., *TV and Film Production Data Book.* Morgan & Morgan, Inc., Publishers, 101 Park Avenue, New York 17.

Schramm, Wilbur, *The Science of Human Communication.* Basic Books, 404 Park Avenue, New York 16, N.Y.

National Education Association

The publications listed below are available from the National Education Association, 1201 16th Street NW., Washington 6, D.C. The first three were produced by the technological development project of the association, with the support of the Office.

Occasional Paper No. 8: *Design of Instructional Equipment: Two Views,* by Humboldt W. Leverenz and Malcolm G. Townsley. $1.50.

Occasional Paper No. 9: *Revolution in the Textbook Publishing Industry,* by M. Frank Redding, with additional material by Roger H. Smith. $1.

Monograph No. 1: *The Changing Role of the Audio-Visual Process in Education: A Definition and a Glossary of Related Terms,* by Donald P. Ely. $3.50.

International Organizations and Associations with Audiovisual Activities: A Directory, compiled by Mabel A. LeFevre. $1.

Learning From Pictures, by Catharine Williams. $4.50.

AD Minutes Briefly noted--- for the busy School Administrator

Material for this department is prepared by the staff of the School Administration Branch, Division of State and Local School Systems

Michigan and South Carolina, by amendments to their State constitutions, have changed both the method of selection and the composition of their State boards of education.

As a result of the change voted by Michigan citizens, the State board of education will be increased from four to eight members, and members of the board will be chosen in partisan elections from the State at large to serve for 8-year terms. The board will appoint the State superintendent of public instruction, an official formerly elected by the people. The new board will serve as a coordinating body among all the universities in the State. The universities will submit their budgets to the board, which will make recommendations to the legislature.

As a result of its constitutional amendment, South Carolina will have an elected 15-member State board of education which will replace the present 7-member board appointed by the Governor. Members will be elected by county legislative delegations within each of the 15 judicial circuits. Education committees in both houses of the general assembly are preparing legislation on the duties, responsibilities, and functions of the new board and the duties of the State superintendent and his relationship to the State board.

Nebraska has more school districts than any other State, according to a report from the Nebraska State Department of Education. Its 3,077 districts are more than the total of all school districts west of Nebraska, excluding California. The report points out that although sparsity of population is used as an argument against school district reorganization in Nebraska, 10 of the Western States have fewer persons per square mile than Nebraska. The State has less than half the districts it had in 1949, but the pace of reorganization has slowed, and last year only 195 districts were dissolved, says the report.

In New Jersey, where most school districts must submit budgets to the voters for approval, a record number of defeats have been sustained this spring. In February nearly 20 percent—101 out of 522—of the budgets for school districts were rejected by the voters. Second elections were held in 100 districts to pass on reconsidered budgets, the great majority of which had been reduced, and 80 of the 100 were defeated a second time. Educational authorities in the State point to the obvious pressure of the increasing property taxes as a major reason for the defeats.

"How To Help Your Child Succeed in School," a tabloid-sized news feature, went out to Houston (Texas) citizens in a recent Sunday edition of the *Houston Chronicle*. The paper, which was prepared cooperatively by the Houston Independent School District and the staff of the *Chronicle*, was directed to parents of children in the kindergarten and grades 1 through 6. These were among the titles of articles included: "24 Ways Parents Can Help Their Child in Reading," "How Parents Can Build Their Child's Word Power," "22 Tips to Parents on Improving Child's Handwriting," and "33 Guideposts to Lead Child into Paths of Science." A similar paper for parents of secondary school pupils has also been prepared.

The Buffalo, N.Y., Board of Education has joined with two local teacher training institutions—the State University College and the State University of New York—in sponsoring a joint conference on urban education and its implications for teacher education. The conference will provide opportunities for students to gain a better understanding of the characteristics and needs of schools in large cities. Buffalo superintendent Joseph Manch says that the conference grew out of the conviction that "teachers colleges in general have not adequately geared their programs to meet the needs of teachers coming into large urban school systems."

The editor of *The Daily Bond Buyer* sees Pennsylvania moving away from dependence on local school authorities, which have enabled communities to finance badly needed facilities in the face of a constitutional debt limit and a restrictive revenue bond law for municipalities. The use of the school building authority for financing was, the editor says, an appropriate expedient in a time of emergency, but it postponed rather than resolved the basic finance problem.

Through "Open-Line: A Conversation Between School-Home-Community," a 6-session institute, Baltimore is trying to improve educational opportunities in depressed neighborhoods. At each of the sessions, local specialists in the behavioral sciences, members of the school staff, representatives of com-

munity agencies, and citizens of the community—most of them housewives—work together to identify family and community conditions that affect the behavior and academic performance of pupils; to devise means of alleviating problems; and to define the responsibility of the school, family, and community agencies in improving educational opportunities for deprived school children and their parents.

The institute is sponsored by the Division of Adult Education, Baltimore City Schools, in cooperation with several community agencies.

School officials in Kansas can very quickly learn the effect of the changes the current session of the State legislature has made in the distribution of school money. From the punched cards on each of the 1,790 operating and 223 closed districts they can obtain data on enrollment, assessed valuation, countywide levies, Federal funds received, transportation expenses, and related facts. They can then feed these data into computers with data on changes in the distribution program, and learn the effects in a short time. In the past, the calculations were done manually or with semi-automatic machines and the results were not known for weeks.

Wayne State University will offer a seminar this summer on "Administration of Public Schools in a Changing Urban Center." Seminar participants will consider the efforts of large city school systems to meet educational needs in changing urban centers; significant educational developments in the Detroit metropolitan area; and trends and practices in the organization and administration of schools in changing urban areas. The seminar is being offered by the college in cooperation with the Detroit and Flint public schools and the University Council on Educational Administration.

The Governor of Florida, in his message on education, makes these recommendations to the State legislature: require all candidates for Florida teaching certificates to take an objective examination; increase State minimum foundation contributions to teachers' pay raises; continue State financial contributions to locally recognized meritorious teachers; provide adequate State funds for the free textbook system; and upgrade professional requirements for county superintendents. The Governor based his recommendations on the proposals made by the Quality Education Committee he had appointed several months ago.

In line with the recommendations, the Governor is proposing for the department of education an increase of $67 million over the appropriation for last biennium.

A factfinding study of the administration of the teaching staff in the New York City school system will be conducted for the board of education by the Center for School Services, New York University. The survey team will study the recruitment, selection, appointment, assignment, and transfer of teachers, and the relation of opportunities for promotion to retention of teachers in service.

Pupil Personnel Services: An Interprofessional Research Commission

IN THE FALL of 1962 a number of professional associations established the Interprofessional Research Commission on Pupil Personnel Services in the belief that services to schoolchildren would be more effective if they were coordinated. Members are the national associations concerned with education; guidance, psychological, health, social work, and attendance services; and speech and hearing correction.

A recent grant of $1.3 million from the National Institute of Mental Health has made it possible for the Commission to launch a 5-year program. Plans call for the establishment of four centers in different parts of the country where staff members will conduct research and demonstrations in cooperation with local school systems and stimulate and coordinate the research of other groups. Through the publications and meetings of member associations good practices can be brought to the attention of the Commission's research staff, and in turn the staff's findings can be made available to members of the associations making up the Commission.

Members of the Commission are the American Association of School Administrators, American Medical Association, American Nurses Association, American Personnel and Guidance Association, American Psychological Association, American Speech and Hearing Association, Association of Supervision and Curriculum Development, Council of Chief State School Officers, Department of Elementary School Principals, International Association of Pupil Personnel Workers, National Association of Secondary School Principals, National Association of Social Workers, and National Education Association.

The Office of Education took part in planning the Commission, and two Office specialists in pupil personnel services, Hyrum M. Smith and Louise O. Eckerson, are ex officio members. Walter D. Waetjen, director, Bureau of Educational Research and Field Services, University of Maryland, has been named commission director of research and demonstration.

More teachers for business education

BRUCE I. BLACKSTONE
Specialist, Office Education
Office of Education

AS BUSINESS EDUCATION courses have grown more and more common in the high schools of this country,[1] colleges and universities have established more and more programs to train teachers for these courses. In the last 6 decades, the number of institutions having a department for training these teachers has grown from zero to 410.[2]

Information on the number of persons awarded degrees in business education is available, for 1955–56 on, from Office of Education surveys. All the data that follow are taken from reports of these surveys (see list at end).

The percentages of increase since 1955–56 in the bachelor's and master's degrees conferred in business education (shown in the table) appear even more substantial when they are compared with increases in other categories. The following tabulation makes such a comparison: it shows the percentage increases in earned degrees at all levels in five different categories between 1955–56 and 1959–60 (1959–60 is used here instead of 1960–61, since at this writing data for the later year are not yet available for all categories). At the same time, for example, that all bachelor's degrees in all fields increased nearly 27 percent and all degrees increased nearly 28 percent, all bachelor's degrees in business education increased more than 42 percent:

	Percent
All degrees in business education:	
Bachelor's degrees	42.5
Master's degrees	40.0
Doctor's degrees	(3)
All earned degrees:	
Bachelor's degrees	26.9
Master's degrees	25.6
Doctor's degrees	10.4
All education degrees:	
Bachelor's degrees	27.7
Master's degrees	11.2
Doctor's degrees	.4
All degrees in secretarial studies:	
Bachelor's degrees	0.1
Master's degrees	(3)
Doctor's degrees	---
All degrees in business and commerce:	
Bachelor's degrees	22.1
Master's degrees	49.5
Doctor's degrees	11.6

Earned degrees conferred in business education in the United States, 1955–56 to 1960–61 and percentage change each year from 1955–56

Level and year [1]	Men	Women	Total	
			Number	Percent of change from 1955–56
Bachelor's degrees:				
1955–56	1,535	2,545	4,080	.....
1956–57	1,939	2,952	4,891	+20
1957–58	1,945	3,209	5,154	+26
1958–59	2,072	3,318	5,390	+32
1959–60	2,121	3,691	5,812	+43
1960–61	1,973	3,765	5,738	+41
Master's degrees:				
1955–56	234	280	514	.....
1956–57	247	309	556	+8
1957–58	306	312	618	+20
1958–59	302	334	636	+24
1959–60	313	404	717	+40
1960–61	315	416	731	+42
Doctor's degrees:				
1955–56	25	5	30	.....
1956–57	13	8	21	−30
1957–58	11	2	13	−57
1958–59	18	9	27	−10
1959–60	13	5	18	−40
1960–61	9	13	22	−27

[1] Years begin July 1 and end June 30.

[1] According to an Office of Education report, *What High School Pupils Study*, by Edith Greer and Richard Harbeck, business education is the most popular of the nonacademic subjects. In 1958, the report says, "approximately 81 percent of all pupils (92 percent of the girls and 69 percent of the boys) completed some credit in this area and more than 18 percent completed over 3 credits."

[2] E. G. Blackstone reported that the first department was established in 1902, the second in 1904, and the third in 1908 (*The Training of Commercial Teachers*, University of Iowa Extension Bul. 141, Coll. of Ed. series 16, 1926). In 1925, in response to his questionnaire, 59 institutions reported having a department for the training of commercial teachers.

[3] Not computed when the base figure is smaller than 50.

Note: The foregoing data are from the following three documents (the first is for sale by the Superintendent of Documents, U.S. Government Printing Office, for $1.25; the others are available free from the Publications Unit, Office of Education—both at Washington 25, D.C.):

Mabel C. Rice and Hazel Poole, *Earned Degrees Conferred by Higher Educational Institutions, 1955–56*, Cir. 499, May 1957.

Wayne Tolliver, *Earned Degrees Conferred 1959–60, Bachelor's and Higher Degrees*, OE–54013–60, Cir. 687.

Summary Report on Bachelor's and Higher Degrees Conferred During the Year 1960–61, OE–54010–61, February 1963.

JOHN F. PUTNAM

Information about dropouts: terms and computations

THE STAGGERING PROPORTIONS of the school dropout problem have emphasized the educator's need for a way of analyzing the problem in an objective and unemotional manner. Educators need sound information about the nature of dropping out so that they can learn both how to encourage potential dropouts to stay in school long enough to graduate, and how to determine the special needs of students who *must* drop out.

Information about school dropouts, such as that presented by Mr. Miller elsewhere in this issue, is valuable for many purposes. The value of such information is considerably enhanced if it is widely collected in the same form, under the same headings and definitions. To the extent that States and school systems use the same definitions for the same terms, they will be able to analyze their own dropout problems in the light of the experiences of other States and other systems, and the data will be readily combinable into significant State and national totals.

Essential to significant and useful information about dropouts is the use of sound basic items of information. Over 250 representatives of 10 national organizations interested in improving the collection and dissemination of educational information have been working together for the past 3 years on a project of pupil accounting for local and State school systems (*School Life*, Feb. 1962). Among the items of information they have selected, classified, and defined for use throughout the country are a number related to dropouts. A selected list of these items, along with definitions, is given on page 28; it is expected that the full list will be published in a handbook next winter. Items of this sort, when widely accepted, and when regularly collected as a matter of routine, should be the basis for computations of data on school dropouts.

Dr. Putnam, specialist for educational records and reports in the School Administration Branch, is a former elementary school teacher and principal. He has also been a part-time instructor at Appalachian State Teachers College, the University of Virginia, and the University of Maryland. One of his principal duties in the Office of Education has been to coordinate the development of a pupil-accounting handbook.

THE COMPUTATIONS presented below are for illustration only and are not to be considered as necessary for all schools to make. Nor should they be considered as the only computations that need to be made. Indeed, calculations specifically about dropouts are of rather recent origin, and none have the authority of long and useful practice. The calculations which follow, therefore, have been selected because they, of all the many and various calculations that could be or have been made, seem the most promising from the standpoint of usefulness and soundness. Not all will be included in the project handbook, but all are based on items listed in the handbook.

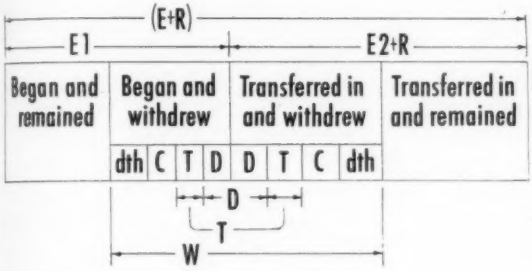
Certain school systems or States may feel that a single computation—for example, the computation yielding the number of dropouts per 1,000 pupils in average daily membership—is adequate for their purposes. Other systems or States may feel that several, or even most, of the computations presented on these pages, as well as other computations, are needed to provide the information they want.

No matter how it is used, each term or heading for a computation should be based on one definition, in order to minimize misinterpretation and misuse of information. And if a school system wishes to use an approximately similar but nonetheless different computation, it should devise a new or distinctive term or heading for the result of the computation; assignment of a term already in use would lead only to confusion and misunderstanding. Moreover, all statements about dropping out should indicate what group of pupils and what period of time they cover; that is, they should indicate the grade or grades of the group during the first regular school term [1] included in the computation and the number of consecutive regular school terms.

For the sake of convenience, the computations that follow are grouped under four major headings: Withdrawal, mobility, holding power, and dropouts. The dia-

[1] The regular school term is the term which usually begins in the fall or late summer and ends in the spring; it may be interrupted by one or more vacations.

gram below, with its key to symbols, should be helpful in preparing the reader for the computations: it represents the number of pupils entering and withdrawing from a school or school system during a regular school term.



$(E+R)$ = number of different pupils entering the school or school system during the regular school term.

$E1$ = number of pupils whose entry into the school or school system was their original one in the United States during the regular school term.

$E2+R$ = number of pupils transferring into the school or school system during the regular school term: For the E2's the entry was their original one in this State during the regular school term; for the R's it was not.

W = number of pupils who withdrew.

D = number of pupils who dropped out.

T = number of pupils who transferred out to other schools or school systems.

C = number of pupils who completed secondary school (grade 12) or equivalent programs.

dth = number of pupils who died.

The formulas that follow may be applied to the elementary and secondary schools of any State. For an entire State, the number of different pupils entering—represented by $(E+R)$ in the diagram above—is the sum of the original entries ($E1$ and $E2$) for all the schools of the State. In calculations for a local school system, the original entries should be augmented by the reentries $R3$, $R4$, $R5$, *and* $R7$ (for definitions, see page 28). In calculations for an individual school, the original entries should be augmented by $R2$ as well.

Withdrawal

Rates of withdrawal indicate the frequency with which pupils withdraw from a school or school system.

Annual rate. The annual withdrawal rate is the total number of times pupils withdraw from a given school or system during the regular term, divided by the number of different pupils entering during the term, and expressed as a percentage:

$$\text{Annual withdrawal rate} = \frac{D+T+C+dth}{(E+R)} \times 100$$

Cumulative rate. The cumulative withdrawal rate is the number of different pupils who entered a school or school system during the first of a series of regular school terms, divided into the total number of times *these* pupils withdrew during these terms, and expressed as a percentage. The same formula applies as for the annual withdrawal rate, but the E's and R's are limited to the first regular school term and, for the pupils who entered during the first term, the D's, T's, C's, and dth's accumulate over all the terms in the series.

Number and percentage of pupils withdrawing, by type of withdrawal. An analysis of the manner in which pupils withdraw from a given school or school system may be made by considering, first, the *number* of pupils withdrawing during a given regular school term in each of the four principal categories of withdrawal—transfer, completion of school work, dropout, and death—and, second, the *percentage* of pupils withdrawing in each of these categories. The percentages may be computed as follows:

$$\text{Percentage of pupils withdrawing by transferring} = \frac{T}{W} \times 100 = \frac{T}{D+T+C+dth} \times 100$$

$$\text{Percentage of pupils withdrawing by completing school work} = \frac{C}{W} \times 100 = \frac{C}{D+T+C+dth} \times 100$$

$$\text{Percentage of pupils withdrawing by dropping out} = \frac{D}{W} \times 100 = \frac{D}{D+T+C+dth} \times 100$$

$$\text{Percentage of pupils withdrawing through death} = \frac{dth}{W} \times 100 = \frac{dth}{D+T+C+dth} \times 100$$

Another method of computing withdrawal percentages is to divide the number of pupils in each category by the number of different pupils entering during the term $(E+R)$ and to express the result as a percentage. These percentages may be called, respectively, percentage of pupils transferring, percentage of pupils completing school work, percentage of pupils dropping out, and percentage of pupils who died.

Mobility

The following indicators of mobility may help to explain the dropout rate. If the numbers of pupils transferring in and out are exceptionally large, they may indicate, for example, a need to study the effectiveness of the instructional and guidance programs for these pupils.

Intransfers per 1,000 pupils in ADM. Intransfers per

1,000 pupils in average daily membership (*ADM*)[2] *in* a given school or school system is the sum of the *times* pupils transfer into these schools during a regular school term, divided by the *ADM* during that term, and multiplied by 1,000 (in this computation *R* always includes *R*2, *R*3, *R*4, *R*5, and *R*7):

$$\text{Intransfers per 1,000 pupils in } ADM = \frac{E2+R}{ADM} \times 1{,}000$$

The rate of intransfer can also be expressed as the *percentage transferring in.* The number of times pupils transfer in during a regular school term is divided by the number of different pupils entering, and the result is expressed as a percentage.

Out-transfers per 1,000 pupils in ADM. The number of pupils transferring out per 1,000 in *ADM* is the sum of the times pupils transfer out of a given school or school system during a regular school term, divided by the ADM during that term, and multiplied by 1,000 (in this computation *T* always includes *T*2, *T*3, and *T*4):

$$\text{Out-transfers per 1,000 pupils in } ADM = \frac{T}{ADM} \times 1{,}000$$

Or, the out-transfer rate can be expressed as the *percentage transferring out.* The number of times pupils transfer out during a regular term is divided by the number of different pupils entering, and the result is expressed as a percentage.

Median length of membership in final school. The median length of membership in final school for pupils who drop out is that length which is longer than the length for 50 percent of the dropouts and shorter than the length for the other 50 percent. The length of membership is expressed to the nearest whole month and includes only the membership during the regular school terms.

Holding power

The holding power of a school or school system over a given period of time is indicated by the proportion of its pupils who do not drop out during that time. Pupils who transfer out are considered as remaining in an educational program.

Annual grade holding power. Annual grade holding power is computed by subtracting, from the total number of different pupils entering a given grade in a given school or school system during a given regular school term, the number of pupils dropping out since the end of the preceding regular term, dividing the remainder by the number of pupils entering, and expressing the quotient as a percentage:

$$\text{Annual } GHP = \frac{(E+R)-\mathrm{D}}{(E+R)} \times 100$$

The same figure can be obtained by subtracting from 100 percent the annual dropout rate for the same group of pupils during the same term.

Cumulative annual grade holding power. Cumulative annual grade holding power—that is, the grade holding power for a group of pupils over a sequence of two or more regular school terms—is computed by multiplying together the annual grade holding power for the terms under consideration. For example, the cumulative annual grade holding power for a group of pupils passing through grades 10–12 during 1961–63 in a given school or school system is computed as follows:

$$\underset{\text{annual } GHP_{10\text{–}12}^{1961\text{–}63}}{\text{Cumulative}} = GHP_{10}^{1961} \times GHP_{11}^{1962} \times GHP_{12}^{1963}$$

Cumulative holding power. Cumulative holding power is computed by subtracting, from the total number of different pupils who entered a given grade in a school or school system during the first of a series of regular school terms, the number of *these pupils* who drop out during *these terms*, dividing the remainder by the number of different pupils who entered during the first term, and expressing the result as a percentage. The computation uses the same formula as the one for annual grade holding power except that the *E*'s and *R*'s are limited to the ones in the first term and the *D*'s accumulate during the series of terms *for those pupils who entered during the first term.*

Projected grade holding power. Projected grade holding power is indicated by the percentage of pupils entering a given grade of a school or school system during a given regular school term who, if the current rate of grade holding power were to continue, would either remain in this school or school system to the end of some subsequent term or would transfer to some other school or school system. The percentage is computed by multiplying together the current grade holding power of all grades the pupils will be in during the time for which the projection is being made. For example, the projected grade holding power for a group of pupils passing through grades 10–12 during 1963–65 is computed as follows:

$$\text{Projected } GHP_{10\text{–}12}^{1963\text{–}65} = GHP_{10}^{1963} \times GHP_{11}^{1963} \times GHP_{12}^{1963}$$

Dropouts

Some of the computations in this section produce dropout rates; others provide a basis for an analysis of the

[2] The average daily membership of a school during a given regular school term is found by adding the days present and absent for all pupils and dividing the sum by the number of days school was actually in session. For groups of schools having different lengths of term, the total *ADM* is the sum of the *ADM*'s of the individual schools.

factors in a high or low incidence of dropping out. Pupils dropping out during the summer are included in the figures for the subsequent regular school term.

Annual dropout rate. The annual dropout rate is computed by dividing the number of pupils dropping out of a given school or school system in a given regular school term by the number of different pupils entering during the term, and expressing the result as a percentage:

$$\text{Annual dropout rate} = \frac{D}{(E+R)} \times 100$$

Cumulative dropout rate.—The cumulative dropout rate is computed by dividing, by the number of different pupils who entered a school or school system during the first of a series of regular school terms, the number of *these pupils* who dropped out during these terms, and expressing the result as a percentage. The same formula applies as for the annual dropout rate, but the *E*'s and *R*'s are limited to the ones in the first term and the *D*'s are accumulated throughout the series of terms for *those pupils who entered during the first term.*

Projected grade dropout rate. The projected grade dropout rate indicates the proportion or percentage of pupils entering a given grade of a given school or school system during a given regular school term who would drop out of this school or school system before the end of some specific subsequent term if the existing rates of grade holding power were to prevail. The projected grade dropout rate equals 100 percent less than the projected grade holding power, for which the formula was given a few paragraphs back.

Dropouts per 1,000 pupils in ADM (annual). The number of dropouts per 1,000 pupils in average daily membership is the number of pupils dropping out since the completion of the preceding regular school term, multiplied by 1,000 and divided by the average daily membership of pupils during this term:

$$\text{Dropouts per 1,000 pupils in } ADM \text{ (annual)} = \frac{D}{ADM} \times 1{,}000$$

Cumulative dropouts per 1,000 pupils in ADM. The cumulative dropouts per 1,000 pupils in the average daily membership of pupils entering a given grade during a given regular school term is the total number of pupils dropping out of this grade group since the completion of the preceding regular school term, times the number of regular school terms included, times 1,000, and divided by the sum of the ADM of the terms included. For example, the cumulative dropouts per 1,000 pupils in *ADM* in a group of pupils passing through grades 10–12 during 1961–63 is computed as follows:

A DROPOUT is a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school. The term "dropout" is used most often to designate those elementary and secondary school pupils who have been in membership during the regular school term and who withdraw from membership before graduating from secondary school (grade 12) or before completing equivalent programs of studies. Such an individual is considered a dropout whether his dropping out occurs during or between regular school terms, whether his dropping out occurs before or after he has passed the compulsory school attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work.—*The definition agreed upon by the Cooperative Project on Pupil Accounting for Local and State School Systems.*

$$\text{Cumulative dropouts per 1,000 pupils in } ADM_{\substack{10\text{–}12\\1961\text{–}63}} = \frac{\left(D_{\substack{10\\1961}} + D_{\substack{11\\1962}} + D_{\substack{12\\1963}}\right) \times 3 \times 1{,}000}{ADM_{\substack{10\\1961}} + ADM_{\substack{11\\1962}} + ADM_{\substack{12\\1963}}}$$

Because the formula is based on the average of the *ADM*'s, it can also be expressed in this way:

$$= \frac{\left(D_{\substack{10\\1961}} + D_{\substack{11\\1962}} + D_{\substack{12\\1963}}\right) \times 1{,}000}{ADM_{\substack{10\\1961}} + ADM_{\substack{11\\1962}} + ADM_{\substack{12\\1963}}} \div 3$$

Number and percentage of pupils dropping out, by reason. An analysis of reasons for dropping out may be obtained by considering, first, the number of pupils dropping out who are included in each of the categories of reasons for dropping out and, second, the percentage of dropouts included in each category. For instance—

$$\text{Percentage of pupils dropping out because of physical illness (D1)} = \frac{\text{Number dropping out because of physical illness}}{\text{Total number of dropouts}} \times 100$$

The percentage of pupils dropping out for each of the other categories of reasons may be calculated in the same way (see the list on page 29).

Number and percentage of pupils dropping out, by residence after dropping out. An analysis of the residence of pupils after dropping out may be made by considering, first, the number of pupils dropping out who

TERMS AND DEFINITIONS

Many of the terms Dr. Putnam uses in his computations—original entry, reentry, transfer, and so forth—have been defined in a nationwide project that recently completed the work of selecting, organizing, and defining the items of information basic to a system of collecting and analyzing data about pupils. The items here are only a few of these; they are presented because of their pertinence to information about dropouts. The definitions will eventually be published in full as part of a handbook of items of information for use in pupil accounting; here they are slightly abridged.

ENTRY

Original Entry

An original entry is a pupil who enters an elementary or secondary school for the first time during a given regular school term in a given State or possession of the United States. There are two kinds of original entry:

E1. Original entry for the United States. A pupil who for the first time in the United States or its possessions enters either a public or nonpublic elementary or secondary school for the regular school term for which the report is made.

E2. Original entry transferred from another State or possession. An entering pupil who, during the regular school term for which the report is made, has previously entered either a public or nonpublic elementary or secondary school in another State or possession but has not previously during the term entered a school in this State.

Reentry

R1. A pupil received from another room within the same elementary or secondary school.

R2. A pupil received from a public school in the same local administrative unit which he entered earlier in the current regular school term.

R3. A pupil received from a nonpublic school located in the same local administrative unit which he entered earlier in the current regular school term.

R4. A pupil received from a public school in the State or possession, but outside the local administrative unit, which he entered earlier in the current regular school term.

R5. A pupil received from a nonpublic school in the State or possession, but located outside the local administrative unit, which he entered earlier in the current regular school term.

R6. A pupil returning to the same room in the same school after withdrawal or discharge from this room earlier in the current regular school term, who has not entered any other school during the intervening period.

are included in each of the categories of residence after dropping out and, second, the percentage of dropouts included in each of the categories.

$$\text{Percentage of dropouts remaining at same residence after dropping out} = \frac{\text{Number of dropouts remaining at same residence}}{\text{Total number of dropouts}} \times 100$$

A similar computation can be made for each of the other categories of residence after dropping out (see the list on page 29).

Number and percentage of pupils dropping out who have complied with laws and regulations for compulsory school attendance. School authorities should determine whether the dropouts have complied with the laws and regulations for compulsory school attendance. Within a given State such determination might concern factors such as the pupil's age, his educational progress, the distance between his residence and the school or the school bus route, the economic needs of his family, and his employment status. For those pupils who drop out of school, an analysis of their compliance with prevailing laws and regulations may be obtained by considering, first, the number dropping out who comply with each of the laws and regulations and, second, the percentage of dropouts who comply. For instance:

$$\text{Percentage of dropouts who had passed the age of compulsory school attendance at time of dropping out} = \frac{\text{Number of dropouts past the age of compulsory school attendance}}{\text{Total number of dropouts}} \times 100$$

A similar computation can be made for each of the laws and regulations pertaining to compulsory school attendance within a given State.

Number and percentage of pupils dropping out, by characteristics of pupils. An analysis of the characteristics of pupils who drop out may be obtained by considering, first, the number of pupils who have certain characteristics, singly or in combination, and, second, the percentage of dropouts having these characteristics or combinations of characteristics.

R7. A pupil received directly from a school in another State, possession, or country who previously entered a school in this State or possession during the current regular school term.

WITHDRAWAL

Transfer

T1. Transfer within the same school.

T2. Transfer to a public school or other instruction under public school supervision in the same local administrative unit.

T3. Transfer to a nonpublic school located within the same administrative unit.

T4. Transfer to a school outside the local administrative unit.

Completion of school work

C1. Graduation from high school (grade 12) or community college.

C2. Completion of terminal program.

C3. Completion of schoolwork in an approved manner other than *C1* and *C2*.

DROPOUT

A pupil drops out when he leaves school, for any reason except death, before he graduates or completes a program and does not transfer to another school.

Death

REASON FOR DROPPING OUT

The *one most significant reason* should be indicated for each pupil dropping out of school, though a school, if it wishes, may maintain separately a record of additional reasons.

D1. Physical illness.

D2. Physical disability—an impairment or handicap of a permanent or semipermanent nature.

D3. Mental illness.

D4. Behavioral difficulty.

D5. Mental disability—a deficiency or handicap of a permanent or semipermanent nature.

D6. Academic difficulty.

D7. Lack of appropriate curriculum.

D8. Lack of interest in school work.

D9. Parental influence.

D10. Need at home.

D11. Economic reasons.

D12. Employment.

D13. Marriage.

D14. Pregnancy.

D15. Other known reason. Reason should be specified—for example, no school available, or excessive distance from home to school or school bus route.

D16. Unknown reason.

D17. Move to another residence; school status unknown.

RESIDENCE AFTER DROPPING OUT

Same residence.

New residence of family.

Noneducational institution.

Armed services.

Other new residence.

No record of residence.

$$\text{Percentage of dropouts who were age 18 at the time of dropping out} = \frac{\text{Number of pupils dropping out at age 18}}{\text{Total number of dropouts}} \times 100$$

Such an analysis can be made of any of a number of personal characteristics of pupils, such as age and sex; of specific activities in which these pupils participated; and of pupil performance, such as programs selected, highest grades completed, specific courses completed, average of marks for all courses or specific marks in given courses, scores on given standardized tests (for example, mental-maturity tests and reading achievement tests), number of times retained or not promoted, and number of absences. An analysis can also be made of information about parents, such as information about their education and occupation; information about residence status of pupils and the number of times the pupils previously transferred to new schools; and information about what States, counties, school systems, or schools the pupils came from.

In each of the last four computations it may be desirable, for purposes of analysis, to compare one factor with other factors. For example, the number of pupils dropping out of school for a given reason may be compared with the percentage of pupils dropping out for this reason, the number of different pupils in the school or school system, and the number of different pupils in a given grade group.

SOUND INFORMATION about pupils who drop out of school may enable educators and other leaders to gain a better insight than they have had hitherto into the nature of the dropout situation, whether they consider it from the standpoint of an individual school, or school system, a city, a State, or the Nation. It may help them to find out what characteristics of children predispose them to dropping out. It may help them to perceive and accept those predisposing characteristics that cannot be changed. It may provide a basis for the modification of characteristics that can be changed. And it may provide a basis for the modification of the physical environment and human relationships in school and community which, if left unchanged, may cause a pupil—or a whole group of pupils—to drop out.

with 2,790 pupils. The 10th-grade sample, from 12 senior high schools and 5 junior-senior high schools, began with 2,031. The study will follow these pupils for 3 years, which will bring the 7th-graders through grade 9 and the 10th-graders through grade 12. Put together, the samples span the 6-year period which ends with graduation from high school and will provide a basis for analyzing the whole dropout problem. Detailed information on each dropout is being recorded on an "exit interview data sheet."

By including data on all withdrawals in these samples, including both dropouts and pupils transferring to other schools, the study will yield information also on the mobility of the pupil population.

Orange County, Calif.

The schools in Orange County, Calif., have good reason to be concerned about the problems associated with population mobility, for Orange County is one of the fastest growing counties in the United States. Between 1950 and 1960 its population increased by more than 488,000. In 1960, when the Federal census was taken, Orange County had a population of 710,000; a few months later, in December 1961, it had an estimated 800,000. By 1980, a projection shows, it will have 2 million people.

In each of the past 8 years, school enrollment has increased by an average of 20,000 pupils. In 1953–54 Orange County had 57,619 pupils from kindergarten through grade 14; now it has 219,000.

With all these changes, the schools have felt a particular need to get acquainted with the circumstances in which their pupils live. They recently made a survey of 3,309 Orange County children and concluded from their sample that 15 percent of all children between 5 and 17 years of age are living in broken homes; that there are approximately 6,000 boys "without father guidance"; that the highest percentages of fatherless boys are in grades 6, 7, and 8.

Having noted from many reports from other studies that children from broken homes are more prone than others to drop out of school, Orange County teachers and counselors are particularly sensitive to signs that these children are becoming potential dropouts. They are using their knowledge of their pupils' background in efforts to keep them in school.

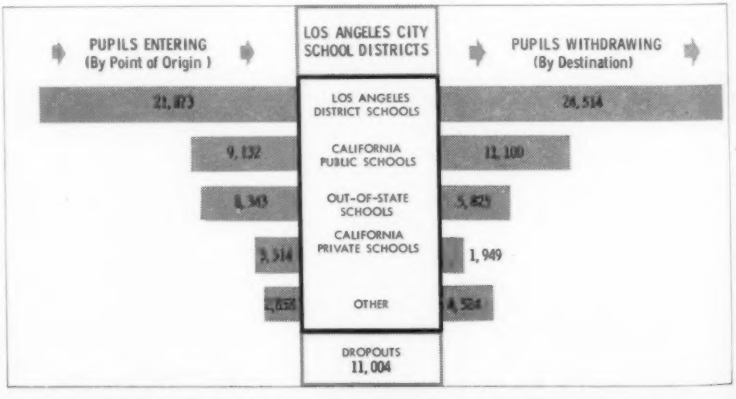
Many other schools are feeling the effects of our constantly shifting population. The Census Bureau reports that between March 1, 1960, and March 1, 1961, more than 35 million persons in the country moved at least once. At least some schools are prepared to handle the changes the moves call for. Their procedures are ready to record students' changes of residence, the destinations of students who transfer out, the origins of those who enter, and the education and the ethnic and socioeconomic background of students' parents. And their teachers and counselors have been alerted to demands that will be made upon them. But there are other schools, unprepared to welcome and to serve the students who come in or to guide those who go out.

Los Angeles

The data-collection system of the Los Angeles City School Districts also reflects an awareness of the effect that population mobility has on a school's program.

Each school keeps a special kind of record on its entries and withdrawals. The pupil who enters during the regular school term is accounted for in a "record of entrance"; the pupil who departs, in a "record of transfer." And if a pupil checks out of school during the summer months or fails to enroll as expected in September, he is accounted for in a "record of summer transfers and September nonenrollees." (In Los Angeles schools, "transfer" is a generic term which covers all pupils leaving school for any reason; it includes dropouts.)

In these records Los Angeles notes the destinations of all pupils leaving its schools, and the points of origin of all pupils entering. The chart on



Number of pupils entering the Los Angeles City School Districts, by point of origin; number transferring, by destination; and number dropping out: 1960–61

Table 3. Estimated dropout rate for secondary schools (grades 7–12) in Los Angeles, based on total enrollments and dropouts in each grade, June 1960 to June 1961

Grade	Enrollment, November 1960	Dropouts, June 1960 to June 1961	Dropouts as percentage of enrollment	Estimated number remaining at completion of grade for every 1,000 entering grade 7
7th	40,503	166	0.4	996
8th	37,499	299	.8	988
9th	36,261	691	1.9	969
10th	33,149	3,810	11.5	858
11th	28,720	3,431	11.9	756
12th	24,770	2,371	9.6	683
Total	[1] 200,902	[2] 10,768	5.4	.....

[1] Does not include 5,027 ungraded pupils.
[2] Does not include 236 ungraded dropouts.

page 30 illustrates the analysis such records make possible: in 1960–61 the excess of transfers out over entrants is accounted for almost entirely by dropouts.

The city has computed its dropout rate in the secondary schools—grades 7 to 12—by a computation using the enrollments and dropouts in each of the 6 grades during a single 12-month period. The computation unfolds in table 3, which shows how, on the basis of 1 year's figures, Los Angeles estimates that out of every 1,000 entering grade B–7, as many as 683 stay to graduate from the senior high school—that, in other words, its dropout rate over the 6-year period is 31.7 percent. It is interesting to see that, although the holding power of the secondary schools is computed not for one actual class as it passes through the 6 grades but for all 6 grades during a single year, the estimate of the size of the graduating class compares closely with the retention rate computed by the Office of Education for a class passing through grades 5–12 in the years 1954–55 to 1961–62, which shows that for every 1,000 fifth-graders in 1954–55, 636 stayed to graduate (*School Life*, Nov.–Dec. 1962, p. 35; for a table showing the holding power of public high schools in each State, see p. 33 this issue).

In analyzing the circumstances that might have a bearing on its dropout problem, Los Angeles has regrouped its figures on dropouts and enrollments by the type of school (table 4). This kind of analysis, as the records accumulate year after year, makes possible many kinds of comparisons that may point to factors in the dropout problem. A comparison, for example, of the percentages of dropouts in the different types of secondary schools in 1960–61 and in the year preceding (in 1959–60 the percentages that correspond to those in the final column of table 3 were as follows: junior high schools, 1.1 percent; 3-year senior high schools, 10.5 percent; 6-year high schools, 5.2 percent; and special schools, 24.8 percent) shows that though the ratio of dropout to enrollment had decreased in the junior high and special schools it had increased in both types of senior high schools. There may be no significance in this particular comparison, but it helps to illustrate my point, that there are important facts about the dropout problem which we have not yet uncovered and the only way to get at them is to keep constantly on the lookout for clues and correlations.

Table 4. Dropouts and enrollments in the secondary schools of Los Angeles, 1960–61, by type of school

	Enrollments [1]	Dropouts			
		Number			Percent of enrollment
		Summer 1960	Academic year 1960–61	Total 1960–61	
Junior high schools	111,493	358	535	893	0.8
3-year senior high schools	81,525	2,329	6,698	9,027	11.1
6-year high schools	11,803	161	469	630	5.3
Special schools	2,082	65	389	454	21.8
Total	206,903	2,193	8,091	11,004	5.3

[1] Mean of the enrollments in the second months of the semesters.

Illinois

In Illinois a study of the dropout population has resulted in the development of programs for schools to use in identifying and holding dropouts.

The study, which the State department of education initiated in 1960, reached back to cover persons who should have graduated from high school in 1959 but who for one reason or another had left school before graduation day. The population selected for study was 11,266 persons

who in 1955 were actually enrolled in the high schools included in the study. The 83 districts participating in the study include approximately 15 percent of all Illinois districts operating a high school, and account for approximately 15 percent of all the public high school students in the State.

As the findings showed, 2,723, or 24.3 percent, of the persons had dropped out before graduation. This percentage is lower than the estimated dropout rate for Illinois, probably because the study did not count those persons who had dropped out before high school.

The findings fall into two major categories.

The first includes data on factors which seem to predispose children to dropping out of school. Findings here show three factors to be particularly influential: A low academic aptitude, a slow rate of emotional and social development, and lack of parental interest in education.

The second includes data on the kind of response the dropouts made to school. This response was measured by the marks they earned, the extraclass activities they had participated in, and the relationships they had with teachers and with other pupils. In almost all of these, the dropouts ranked low.

As a result of the interest aroused throughout the State by the findings in the study, the State department of education has worked out procedures and devised instruments for the schools to use in identifying the potential dropout. The bulletin it has prepared contains reproductions of personal-data summary sheets and suggested models for research studies to be carried out in both large and small schools—elementary, junior high, and senior high schools. The bulletin also includes suggestions on the selection of staff, inservice training, and equipment, materials, and facilities.

Rochester, N.Y.

The school system in Rochester, N.Y., having made a study of its own dropouts, has proceeded to the next logical step—to look beyond itself and measure its own problem against that of others. In making this kind of comparison, more than one school system has been enlightened as to the causes of its own problem; it may, for example, have found differences between itself and others that have been clues to some unusual factor in its own situation.

Just as comparisons make more sense when they are made between school systems in fairly similar circumstances, so comparisons make more sense when they are based on terms that mean the same things in all the school systems being compared. Lack of uniformity throughout the Nation in the terminology used in studying and discussing the dropout problem has no doubt retarded our progress in finding solutions to it. Now, however, a cooperative national effort has produced not only a definition of dropout that is gaining widespread support but definitions of a great many other terms related to information about pupils—I refer the reader again to Dr. Putnam's article on page 24—and the future for research on the dropout problems and for the exchange of significant information about it looks bright.

Rochester, in comparing its data on the ages of dropouts with the data in six other studies found, for example, that its own dropouts were, on the whole, older than the others (table 5). This fact probably has no meaning for the Nation as a whole, but to Rochester it may be a highly significant point of contrast.

Table 5. Rochester dropouts in 1960–61 compared, on the basis of age at time of dropout, with dropouts in 6 selected studies

Study	Age at time of dropout						Mean age at dropout
	15 years and under	16 years	17 years	18 years	19 years	20 years and over	
	Percent	Percent	Percent	Percent	Percent	Percent	Years
Rochester	1	33	41	19	5	1	17.48
Syracuse [1]	6	43	29	16	4	2	16.70
Tacoma [2]	13	30	32	17	4	5	17.01
7 communities [3]	11	34	27	16	5	7	16.88
Connecticut [4]	6	53	28	[5] 13			16.46
Early school leavers [6]	10	54	26	[5] 10			16.38
California [7]	16	58	20	([8])	([8])	([8])	16.04

[1] Syracuse Youth Development Center in conjunction with New York State Division for Youth Syracuse Dropout (unpublished).
[2] Tacoma-Pierce County Study of Education, "These Left Before Graduation." Tacoma, Wash., May 1958.
[3] U.S. Department of Labor, "Schools and Early Employment Experience of Youth—a Report on Seven Communities, 1952–57," Bureau of Labor Statistics Bul. No. 1227–1960. Washington, D.C., 1960. (The 7 communities include 1 each in New England, Middle Atlantic, South Atlantic, and Mountain regions, and 3 in the East North Central region.)
[4] State of Connecticut, Commission on Civil Rights, "Comparative Study of Negro and White Dropouts in Selected Connecticut High Schools," Hartford, 1959.
[5] 18 years and over.
[6] Harold J. Dillon, "Early School Leavers," National Child Labor Committee, New York, 1949.
[7] W. H. McCreary and D. E. Kitch, "Now Hear Youth," "Bulletin of the California State Department of Education," Sacramento, Calif., October 1953.
[8] Not available.

Selected references

1. Huffington, Paul E., "Pupil Dropout Study: Maryland Public High Schools," State Department of Education, May 1962.

2. Warner, O. Ray, "Utah State Dropout Study—An Interim Report," Department of Public Instruction, Division of Pupil Personnel and Guidance Services, Salt Lake City, Utah, 1962.

3. "Tucson's Drop-Out Problem—Report of a Study with Recommendations by the Youth and Work Committee," Tuscon's Community Council, 111 West Washington Street, Tucson, Ariz., Nov. 1962.

4. *Dropout Study: Two-Year Report—Sept. 20, 1960, to Sept. 17, 1962*, Department of Research and Information, Dade County Public Schools, Miami, Fla., February 1963.

5. *Orange County Newsletter*, Jan. 1962, Ralph G. Hickman, editor, Department of Guidance, Orange County Schools, 1104 W. 8th Street, Santa Ana, Calif.

6. *Transfers, Entrants, and Dropouts in Los Angeles City Secondary Schools*, 1960–1961, Research Report No. 246, May 1962, Evaluation and Research Section, Los Angeles City Board of Education, Los Angeles 54, Calif.

7. *Procedures for the Identification of Potential High School Dropouts*, Office of the Superintendent of Public Instruction, State of Illinois, 302 State Office Building, Springfield, Ill., 1962.

8. "Rochester, The School Dropout Problem" (Part I), Division for Youth, Alexander Aldrich, director, Rochester Public School System, Rochester, N.Y.

9. Current Population Reports, Population Characteristics, "School Enrollment: October 1961," July 11, 1962, Series P–20, No. 117.

10. ———————. "Mobility of the Population of the United States, March 1960 to March 1961," Aug. 9, 1962, Series P–20, No. 118.

The number of ninth graders in 1958–59 compared with the number of high school graduates 4 years later, public schools, by State [1]

State	Ninth graders, 1958–59	High school graduates, 1961–62	Percent graduating
Total U.S. (50 States)	2,415,309	1,682,609	69.7
Alabama	51,860	30,455	58.7
Alaska	2,266	1,424	62.8
Arizona	19,009	12,499	65.8
Arkansas	30,576	19,328	63.2
California	[2] 201,721	166,500	82.5
Colorado	24,581	17,367	70.7
Connecticut	[2] 29,944	21,941	73.3
Delaware	5,630	4,026	71.5
Florida	66,039	42,882	64.9
Georgia	63,458	36,014	56.8
Hawaii	9,418	7,793	82.7
Idaho	11,851	8,722	73.6
Illinois	118,189	82,739	70.0
Indiana	67,575	46,825	69.3
Iowa	38,030	30,081	79.1
Kansas	31,398	[3] 24,715	78.7
Kentucky	41,524	23,759	57.2
Louisiana	48,004	28,492	59.4
Maine	12,966	8,655	66.8
Maryland	40,190	26,438	65.8
Massachusetts	[2] 62,719	45,826	73.1
Michigan	96,147	75,323	78.3
Minnesota	47,977	38,340	79.9
Mississippi	36,474	22,094	60.6
Missouri	55,921	[3] 40,174	71.8
Montana	10,115	7,413	73.3
Nebraska	18,619	14,469	77.7
Nevada	4,173	2,638	63.2
New Hampshire	7,282	4,896	67.2
New Jersey	72,210	50,977	70.6
New Mexico	15,205	8,971	59.0
New York	195,278	131,741	67.5
North Carolina	81,342	48,068	59.1
North Dakota	9,782	7,604	77.7
Ohio	122,055	86,681	71.0
Oklahoma	39,347	27,052	68.8
Oregon	26,780	20,127	75.2
Pennsylvania	140,151	103,037	73.5
Rhode Island	[4] 9,010	6,448	71.6
South Carolina	39,878	23,929	60.0
South Dakota	10,141	8,186	80.7
Tennessee	57,164	33,701	59.0
Texas	137,872	86,518	62.8
Utah	15,674	12,130	77.4
Vermont	4,810	3,315	68.9
Virginia	54,843	34,232	62.4
Washington	41,525	33,223	80.0
West Virginia	32,587	19,527	59.9
Wisconsin [5]	[2] 50,741	41,401	81.6
Wyoming	5,258	3,913	74.4

[1] This table was compiled by the Office of Education. The first 2 columns of figures are not completely comparable, owing to interstate migrations and transfers to or from nonpublic schools. [2] Enrollment not cumulative, but as of a specific date. [3] Estimated by the State. [4] Partly estimated by the Office of Education. [5] Excludes vocational schools not operated as part of the regular school system.

Notes on the Notable.

Polish translation program renewed

THE COMPARATIVE EDUCATION BRANCH of the Office of Education's Bureau of International Education has renewed, for a second year, a contract with the National Science Foundation for the translation of educational material being published in Poland. Under the terms of the contract, the State Scientific Publishers of the Polish Ministry of Higher Education, through the National Science Foundation, furnishes the Office with four annotated bibliographies a year and with translations of material selected from the bibliographies. The Office has requested that bibliographies cover all levels of education with respect to major aspects of education, such as laws and decrees, curriculums, statistics, official statements, and reports by the Ministry of Education and the Ministry of Higher Education.

The Office is presently negotiating a similar contract, through the National Science Foundation, with Yugoslavia.

The translation program is financed by Public Law 480, that is, by funds owed to the U.S. Government for the sale of surplus agricultural products which must be spent in the country owing them. Under provision of the same law, the Office has direct contracts in Burma and Indonesia for the translation and abstracting of educational material published in these countries.

The annotated bibliographies and abstracts prepared abroad provide the Office with a permanent record of current educational publications in less familiar languages and furnish the basis for the Office's collection of critical primary source materials on education in foreign countries.

Surplus property report

ACCORDING TO its report to the Congress, in the first quarter of 1963 the U.S. Department of Health, Education, and Welfare made $66,641,645 worth of surplus property available to certain State agencies and nonprofit organizations. Real property accounted for $3,628,994 and personal property for $63,012,651.

Through the Federal Property and Administrative Services Act of 1949, the Department makes property no longer needed by the Federal Government available to educational, public health, and civil defense agencies of State and local governments, and to eligible nonprofit health and educational institutions exempt from Federal taxes. The property is distributed through the regional offices of the Department.

Property transferred to the States included such items as school and hospital building sites; buildings suitable for college dormitories for faculty housing; motor vehicles; hospital, school, and office furniture; hand machine tools; motion picture projectors; laboratory equipment; and school and office supplies.

Traveling exhibits

NOT EVEN SITKA, Alaska, is too remote for the Smithsonian Institution Traveling Exhibition Service. Last month the Service's exhibit "Hawaiian Children's Art" was on display at Sheldon Jackson Junior College in Sitka. Next month its exhibit "Eskimo Graphic Art" could be on display in Honolulu.

The exhibits include paintings, sculptures, drawings, prints, photographs, and special exhibits on architecture, design, crafts, the Orient, photography, history, science, and children's art. Some titles are "George Catlin," "Tutankhamun Treasures," "Drawings by Sculptors," "The America of Currier & Ives," "Prehistoric Mexico," "Shaker Craftsmanship," "American Textiles," "Burmese Embroideries," "The Swedish Film," "Humming Birds," and "A Child's World of Nature."

Schools, colleges, museums, art associations, and other cultural and educational groups may rent the exhibits. Fees run from $35 to $500; the exhibitor also pays shipping costs to the next exhibitor.

For information on the traveling exhibits write to the Traveling Exhibition Service, Smithsonian Institution, Washington 25, D.C.

Institutes on nuclear energy

THE ATOMIC ENERGY COMMISSION and the American Society for Engineering Education are sponsoring orientation institutes, advanced institutes, and special topic institutes this summer for faculty members of engineering colleges and technical institutes. Participants will receive stipends based on their regular salaries and travel allowances.

Institutes will be 4 or 8 weeks long and will offer such subjects as nuclear physics, nuclear energy systems, reactor theory, mathematics, advanced reactor theory, energy conversion techniques, thermonuclear theory, and chemical processing. They will be held at Iowa State University, North Carolina State College, University of Wisconsin, University of California-Los Angeles, University of Illinois, University of Michigan, and University of Washington.

AEC sponsors safety study

TO DEVELOP the ability to evaluate possible hazards of reactor operations, the Atomic Energy Commission sponsors courses at Oak Ridge (Tenn.) National Laboratory (ORNL) for its employees, the employees of the National Aeronautics and Space Administration, Government contract employees, and scientists and engineers outside the Government. Each course lasts 12 months. After 9 months of training, the student spends 3 months evaluating the possible hazards of a proposed reactor. The courses prepare the student to supervise the safe operation of a research and power reactor. A student receives instruction in the scientific and engineering principles of reactors and practical experience with them. Members

of the laboratory staff are instructors. A session is now in progress, and 37 scientists and engineers—14 from 7 foreign countries—are enrolled. About 150 scientists have taken part in the program, including 67 from foreign countries.

Deadline nears for Korean veterans

THE nearly 200,000 veterans of the Korean conflict still eligible for educational benefits under the Korean GI Bill have only until January 31, 1965, to complete training or education. Since the Korean GI program began, more than 2.4 million veterans of the Korean conflict have taken advantage of the bill and have attended college or taken below college-level training, including on-the-job and on-the-farm training. About 100,000 veterans are still in training. Questions about the program should be addressed to the Veterans Administration, Washington 25, D.C.

USIA acquires books for overseas

PUBLISHERS and public school systems in the United States have contributed about 750,000 reference volumes and textbooks to the U.S. Information Agency for shipment to its overseas posts for distribution to libraries.

UNICEF cartoon competition

THE U.S. COMMITTEE FOR UNICEF (United Nations Children's Fund) is sponsoring a nationwide competition for cartoons on a Halloween theme to be used in 1964 to publicize its annual "Trick or Treat" program for the benefit of UNICEF. The contest is open to anyone 16 years of age or older. Entries must be designed to encourage children to take part in the "Trick or Treat" program; they may be either humorous or serious. The creators of the three cartoons judged the best will each receive 3-year home study scholarships in cartooning from the Famous Artists School.

Each entry (only one to a person) must be drawn in ink on a letter-sized (8 by 10½ inches) piece of illustration board, drawing paper, or white cardboard. The contestant's name and address must be printed in the upper right-hand corner. All entries must be mailed by October 31, 1963, without frames, to UNICEF Cartoon Competition, Westport, Conn. Cartoons become the property of the U.S. Committee for UNICEF and will not be returned.

The winners will be announced in December 1963.

Story of a Gallaudet graduate

GALLAUDET COLLEGE has published a 14-page, illustrated booklet called "Dear Diary," which is the career story of one of its graduates. The story takes the student from his early childhood, when he became deaf, to the present time. He is now an assistant professor of history and political science at Gallaudet. The college has issued the publication to point out that deafness is not necessarily a handicap to achievement.

"Dear Diary" has received a district award for distinguished achievement in the 1963 American College Public Relations Association Honors Competition and will be exhibited with other winners at the NCPRA's national conference in June.

Schools for the deaf, organizations working with the deaf, and Gallaudet alumni have received copies of "Dear Diary." Free copies are available from the Office of Public Relations, Gallaudet College, Washington 2, D.C.

Recommendations for Federal recruiting program

HOW CAN the Federal Government present a good case for itself on the college campus as an employer? A four-member panel of college presidents, meeting at the Washington Agencies Recruiting Conference last fall, answered the question with these recommendations:

- Improve the impression of its executives on the college campus
- Publicize the careers of college graduates in Federal service
- Emphasize the worldwide scope of Government employment
- Improve the appreciation of the Federal service among college faculty members
- Sponsor career days on campuses
- Coordinate the recruiting programs of agencies with similar needs
- Have single agencies tailor their recruiting programs to meet the features of each campus and employ recruiters who know the agency's needs.

The panel also recommended that the Federal Government continue to strive for excellence in its selection process. It recommended that streamlining the examination process, especially cutting down the time between interviewing and hiring, would improve the attractiveness of Federal employment to college students.

Proceedings of the nuclear education conference now in print

THE PROCEEDINGS of the Special Conference on Progress in Nuclear Education, attended by 150 U.S. scientists and educators last August, are now in print. The conference was sponsored by the Oak Ridge National Laboratory, the Oak Ridge Institute of Nuclear Studies, and the American Nuclear Society, in cooperation with the Atomic Energy Commission; and its proceedings contain the 20 technical papers read before it. They discuss present and future problems and programs in education in nuclear science and engineering, from the secondary school level to the graduate and postgraduate level.

Copies of the 190-page proceedings are available from the Office of Technical Services, Department of Commerce, Washington 25, D.C., for $2.75 each. A section of the proceedings, "Advances in Secondary School Education," are available without charge from the Atomic Energy Commission, Division of Technical Information, P.O. Box 62, Oak Ridge, Tenn.

Malaya—U.S.A. cultural agreement

MALAYA and the United States have signed a cultural exchange agreement for 5 years. The agreement provides for the organization of a binational commission to plan and administer a Fulbright-Hays program in Malaya and to arrange for an interchange of professors, teachers, and students between the two countries.

MICHIGAN STATE UNIVERSITY
LIBRARY #L 56679
EAST LANSING MICH
SCH MAY 18220 BA

UNIT
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON 25, D.C.

OFFICIAL BUSINESS

EDUCATION

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(GPO)

OFFICE OF EDUCATION PUBLICATIONS CHECKLIST

FOR SALE

Order from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Remittance must accompany order.

The Development of Education in Venezuela.
By George I. Sánchez, 1963, 114 pp., 55 cents (OE–14086).

Educational AM and FM Radio and Educational Television Stations, by State and City.
By Gertrude G. Broderick, April 1963, 29 pp., 25 cents (OE–34016–63).

Education in Czechoslovakia.
By Nellie Apanasewicz and Seymour M. Rosen, 1963, 40 pp., 20 cents (OE–14090).

Enrollment for Advanced Degrees: Fall 1960.
By Wayne E. Tolliver, 1963, 485 pp., $2.75 (OE–54019–60).

Fall 1962, Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools.
By Carol Joy Hobson and Samuel Schloss, 1963, 37 pp., 35 cents (OE–20007–62).

Motion Picture Production Facilities of Selected Colleges and Universities.
A survey by the University Film Foundation, reported by Don G. Williams and Luella V. Snyder, 1963, 345 pp., $1.25 (OE–51005).

Role of the School in Prevention of Juvenile Delinquency: A Research Symposium Sponsored by U.S. Office of Education and Phi Delta Kappa.
Edited by William R. Carriker, 1963, 101 pp., 35 cents (OE–25034).

Staff Personnel Administration: Selected Practices and Issues.
By James P. Steffensen, 1963, 49 pp., 25 cents (OE–23027).

Teaching About Human Rights.
By Wilhelmina Hill and Howard C. Cummings, reprint from November-December 1962, *School Life*, 6 pp., 10 cents (OE–31004).

The Use of Programed Instruction in U.S. Schools: Report of a Survey of the Use of Programed Instructional Materials.
By the Research Division, Center for Programed Instruction, Inc., 1963, 83 pp., 35 cents (OE–34022).

FREE

Request single copies from Publications Distribution Unit, U.S. Office of Education, Washington 25, D.C.
Please include publication number. Supply is limited.

Central Office Services to Elementary Schools: Organization, Responsibilities, and Coordinating Activities.
By Gertrude M. Lewis, January 1963, 17 pp. (*Education Briefs*, No. 39A, OE–23028).

Educational Data: Republic of Ireland.
By Margaret L. King and George A. Male, March 1963, 12 pp. (*Information on Education Around the World*, No. 69, OE–14034–69).

The Liberal Arts in a Revolutionary World.
By Oliver J. Caldwell, reprinted from *Higher Education*, January 1963, 6 pp. (OE–56013).

Manual for National Defense Language Institutes.
For participating institutions, revised 1963, 26 pp. (OE–27006–63).

The Research Section in the Japanese Ministry of Education.
By Robert D. Barendsen, 1963, 6 pp. (*Information on Education Around the World*, No. 68, OE–14034–68).

Summary Report on Bachelor's and Higher Degrees Conferred During the Year 1961–62.
By Wayne E. Tolliver, April 1963, 7 pp. (OE–54010–62).

Western Europe.
By Lois B. Watt and Dale F. Berger, *Educational Materials Laboratory Report*, vol. V, No. 1, March 15, 1963, 17 pp. (OE–14031–23).

U.S. GOVERNMENT PRINTING OFFICE: 1963